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SCHOOL MANAGEMENT

INCLUDING

ORGANISATION, DISCIPLINE, AND MORAL TRAINING

TOGETHER WITH

A GENERAL VIEW OF THE WORK OF EDUCATION, AND SOME ACCOUNT OF THE INTELLECTUAL FACULTIES FROM THE TEACHER'S POINT OF VIEW

BY

JOSEPH [redacted] SALTLEY

SECONDHAND SCHOOL BOOKS PURCHASED.

Angus & Robertson,
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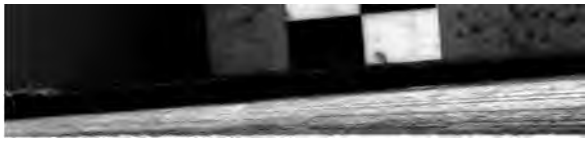


PREFACE

TO

THE FIRST EDITION.

IT IS HOPED that the present volume will prove useful to students of the subject upon which it treats, more particularly to those in their second year of residence in training colleges, and to such of the general body of teachers as wish to have at hand, in a compact form, something beyond the bare outlines so often presented.

An attempt has been made in the first part to give such a sketch of the Intellectual Faculties, and of the bearing of the facts of Mental Science upon the work of the teacher—especially his general methods—as will serve for a foundation on which the succeeding portions of the work may be built. Of the three great divisions of the teacher's work—Organisation, Discipline, and Teaching—the first two are more particularly dealt with in this book. While, however, the systematic and detailed treatment of the scientific laws by which Teaching should be governed, together with the complete description of methods and special devices, is left for a future volume, the elucidation of a great number of points respecting this department

of the work will also be found scattered through the present treatise.[1]

Invention or novelty has not been my aim. Still, I trust it will be found that some portions of the work are new, and that, though I have not scrupled to make use of any facts of value within my reach, these have not been adopted without careful examination, and their points of connection with the general subject realised. I have done my best also, wherever I have borrowed any one's peculiar property or the special form of an idea, to acknowledge my indebtedness. That I have succeeded in doing this in all cases I dare not hope.

Throughout I have tried to give such information upon the various subjects treated as to the teacher is worth knowing, and, where possible, to bring each important point to the test of experience. This has led me to dissent strongly in several places from very commonly accepted opinions. My object in such cases is rather to lead to further observation and experiment than to lay stress upon my own views.

In conclusion I have to express my sincerest thanks to the Rev. F. W. Burbidge, M.A., for his kindness and help in so carefully reading through the proof-sheets, and to several other friends for a similar favour, or for suggestions during the progress of the work.

J. L.

SALTLEY: *November* 27, 1882.

[1] See under 'Teaching' in Index.

PREFACE

TO

THE SECOND EDITION.

THE issue of a second edition gives me an opportunity not only of gratefully acknowledging the very kind and favourable reception which the book has met with, both from the public and the press, but also of adding a few words of fuller explanation as to the contents of the volume than at first seemed necessary.

It has long been thought by many experienced educators, and others who have the good of education at heart, that something ought to be done to interest, more particularly, the younger teachers of our country, in such, at least, of the fundamental facts of Mental Science as have a distinct bearing on the everyday work of the school. The Committee of Council seems also to have come to the same conclusion; for an elementary knowledge of the kind mentioned is now demanded from every second-year student who presents himself at the annual Christmas examination for certificates.

It is with the object then of providing, within moderate limits, more especially for the needs of the teachers just mentioned—as well as of offering a

connected view of such principles as will be found valuable in the study of the subjects treated in the succeeding portions of the work—that the introductory chapters of the present volume have been written. These are not put forward as in any way forming a psychological treatise—for the treatment is in many cases necessarily very brief—but rather that they may serve as a groundwork, from which the teacher may extend his reading as he pleases; and it is hoped that, though occasionally the views expressed may not meet with the approbation of some, the student will have but little to unlearn. I have endeavoured to present a *suggestive* outline of the main points of the subject, and to show that it is not the dry mass of facts, of little use to the teacher, which it is often supposed to be. The practical bearing, therefore, rather than the strictly scientific aspect of the subject has been insisted upon, and the facts presented in such a way as seemed most likely to be of use to those for whom the book is intended.

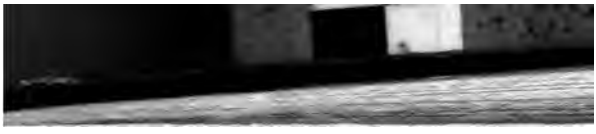
I am afraid that in some instances the ideas will appear to be stated in a rather dogmatic way; this is far from being intentional, and is rather to be put down to the necessity of being as brief and pointed as possible, than to any wish to shut out consideration of other views and opinions.

The important subjects of *Organisation* and *Disciplinary Training* are treated at considerable length, and probably with as much completeness as would

be useful in a work of the present kind. They are dealt with in logical order, and the attempt is made not only to say *what* should be done, but *why*. The subject of *Teaching*, both from its importance and its extent, needs to be very much more fully dealt with than would have been possible in the present volume, and I have therefore much preferred to leave this subject, as a subject, for more complete treatment by itself, rather than spoil the whole work by an attempt to cram so much into a single book.

J. L.

SALTLEY : *August* 1883.



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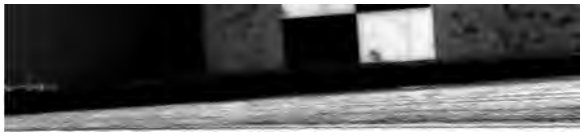

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SCHOOL MANAGEMENT.

PART I.

A GENERAL VIEW OF THE WORK OF EDUCATION, WITH SOME ACCOUNT OF THE INTELLECTUAL FACULTIES.

CHAPTER I.

THE MEANING AND SCOPE OF EDUCATION.

'MAN cannot propose,' says Plato, 'a higher or holier object for his study than education, and all that pertains to education.' The importance of an acquaintance with the work of education is generally recognised in our own day, but unfortunately, in many cases, we go no further than this recognition. This is not as it should be; the good of our children, the well-being of society, the physical, mental, and spiritual progress of mankind, demand from the educator, be he parent or teacher, something deeper than mere opinion—a faith which issues in action. The work of training and informing the child is necessarily, in the great majority of instances, handed over almost entirely to the teacher; and few duties are associated with a more weighty responsibility than the work he

has to perform. It is so fatally easy to do mischief, and so exceedingly difficult to fully recognise the effect—to estimate correctly the impression made from present indications—that he who would act aright in this matter should give earnest heed to any study which promises to render his difficulties less perplexing, and his work more sure. He will consider with close attention the body, the mind, and the moral nature, including in the latter the religious sentiments; and this will lead him to make himself acquainted with the fundamental facts of Physiology, Psychology, and Moral Philosophy, more especially with such as bear upon the development of the child in either of the directions indicated. Without some knowledge of this kind the teacher is endeavouring to train faculties, of which he knows little or nothing, by methods the laws of which he knows even less; and he can only hope that things will somehow or other come out right in the end.

The subjects just mentioned not only furnish us with a large amount of information concerning the being to be educated, but they supply us also with certain general laws which give a natural foundation for our plans, and so guide us materially in carrying on our work of development. These principles, tested by experience, and extended by observation, form the basework of the science of education. 'The laws which govern the growth of the human mind,' says Professor Henry, 'are as definite and as general in their application as those which apply to the material universe, and a true system of education must be based upon a knowledge and application of these laws.' The fundamental principles, then, of education are drawn in a large measure from the sciences which

are specially concerned with the mind and the body. Such laws interpret for us, and strengthen us in, certain lines of conduct found to be successful in actual practice. They prevent us in numerous instances from going astray, they enable us to discern our errors, and they give us encouragement by showing us when we are working in the right direction.

Proceeding thus in accordance with the principles laid down for us, certain methods of procedure soon come to be recognised by educators as leading to correct results by the shortest and least laborious routes. A description of these, together with any practical rules drawn directly from scientific considerations, or suggested by experience, form what is generally spoken of as the Art of Education. This is very valuable in its way, but is rendered far more so when the laws upon which it is based receive the attention at the hands of the teacher which they deserve; that is, when he makes himself acquainted with the underlying science.

The word education comes to us from the Latin verb *educare*, to train, nurture, or bring up a child, physically or mentally; and this again is connected etymologically with *educere*, to lead or draw out. Thus we see that the root idea of education is the leading out, the training or cultivation, of the powers or capabilities of action with which man is endowed. This development of the faculties depends upon their proper, frequent, and regular use; and thus exercise, both physical and mental, becomes a matter of prime importance to us—a necessity of our well-being. 'The intellect,' says Aristotle, 'is perfected, not by knowledge but by activity.'

Rightly used the powers expand, strengthen, and

progress towards perfection, but if allowed to remain unemployed they lose their elasticity—their power both of growth and of ready action—and move only in a lethargic and feeble manner when called upon. 'It is the noble office of education,' writes Marcel, 'to direct their natural activity, to extend and multiply their various energies, as also to indicate the means by which they may best perform their work, and by which they are made subservient to happiness.'

Education, then, in its broadest sense, will include all the influences brought to bear upon us which modify in any degree the growth or character of our powers as human beings. These influences are of two kinds :—

1. Those which affect us by chance, so far as man is concerned, the many-sided undirected impulses arising from home, companions, books, the world, &c. Such influences, both from their number and from their frequent opportunities of action, exert a powerful effect upon our development. 'The expressly appointed schoolmasters and schoolings we get,' says Carlyle, 'are as nothing compared with the unappointed, incidental, and continual ones, whose school hours are all the days and nights of our existence, and whose lessons, noticed or unnoticed, stream in upon us with every breath we draw.' But powerful as is the influence of this *fortuitous training*, it is nearly certain to be, from the circumstances of the case, partial and inharmonious, and not unfrequently perverted. Hence, in order that it may tend to well-being, it must be dominated and interpreted, and its effects in many instances corrected or neutralised by that specific training which is more especially in the

hands of the teacher, and to which we generally apply the term education.

2. The second class of influences, then, includes those which are brought to bear upon us with a definite purpose in a pre-arranged, suitable, and methodical manner, by parents, teachers, and ourselves. This studied and *specific education* has two essential functions.

a. The first function is *the strengthening and extension of the human powers, so that each may act in the most perfect manner, and yet work harmoniously with the rest.* Education in this connection should guard the faculties from neglect or mischance, and so direct its operations as to lead forth the child into a complete man, capable of acting and willing to act in any required direction, promptly, powerfully, and from right motives. This, which has been called the '*humanistic*' or '*disciplinary*' view, has for its object, then, the acquisition of physical, mental, and moral *power* by the individual. Those branches of study which are generally included in polite learning or 'belles-lettres,' languages, history, &c.—in fact those which are supposed to have a specially humanising effect upon man, cultivating particularly those faculties which distinguish him as a man in all his human relations—are still spoken of as the 'humanities.' Educators who have adopted the humanistic view of education have usually looked to classical studies as the great means of mental training, and hence classical culture has generally been regarded as the type, if not the essential feature, of humanistic training.

It was to this disciplinary culture, irrespective of the utility for the ordinary purposes of life of the information conveyed, that nearly all the celebrated

early educators directed their efforts. The famous school of Johann Sturm at Strasburg owed its renown to successful training of this kind; and Ascham and others in England, and such men as Luther, Gesner, Hermann, and Wolf abroad, all sought to encourage and carry out the same idea of education. It is the view principally enforced by such writers and thinkers as Kant, Stewart, Willm, Marcel, and J. S. Mill. The Scotch schools have always been famous for the attempt to develop intellectual habits, rather than for insistence upon information as an important thing in itself, and have sometimes carried this to excess. The 'Gymnasia' of Germany also direct their attention more particularly to culture, rather than to knowledge for any intrinsic value of its own.

In speaking of the Prussian definition of education, which insists upon the harmonious and equable evolution of the human powers, Professor Bain points out that we must not strain the harmoniousness of development unduly, but must make various allowances in practice. He says that, although good up to a certain point, this view 'does not readily accommodate itself to such circumstances as these:—namely, the superior aptitude of individuals for some things rather than others; the advantage to society of pre-eminent fitness for special functions, although gained by a one-sided development; the difficulty of reconciling the "whole man" with himself; the limit to the power of the educator, which imposes the necessity of selection according to relative importance.'

b. The second function of specific education is *the preparation of the individual for the active work of life, the acquisition of knowledge for its own sake, and the clear appreciation of personal, social, and political duties.*

This is often spoken of as the '*realistic*' or '*utilitarian*' aspect of education, though neither term can be said to properly describe it. The exponents of this view generally lay great stress upon the teaching of science as giving a most useful culture of its own, and as providing the pupil with information of much value in itself. They aim at educating a boy to become a *practical* man, not specially a scholar; and they consequently emphasise instruction, more particularly such as affords ample opportunities for the careful exercise of the senses. The upholders, however, of the practical side of education, while they have many important characteristics in common, differ largely in the details of their views; and in many cases are not so much opposed to the humanitarians upon the general question, as with respect to the particular elements of training which are to be considered of most importance, and in the methods by which the end advocated is to be arrived at.

Bacon may be looked upon as the founder of the realistic view in England, and many Continental educators have owed much to his teaching. Comenius was distinctly a sense realist, though not prepared to limit studies in the way many of the realists have advocated. Milton insisted principally upon preparation for the actual business of life, and speaks of the dragging of the 'choicest and hopefullest wits to that asinine feast of sowthistles and brambles, which is commonly set before them as all the food and entertainment of their tenderest and most docile age.' Locke was also a strong supporter of the practical view of education. Rousseau too had much in common with the realists; while Pestalozzi and his followers may all be said, more or less, to belong to them. The

most renowned, as well as the most thorough-going advocate of the realistic idea of education in our own days is Mr. Herbert Spencer, who maintains that the knowledge which is of most worth for its usefulness in daily life is also that which affords the most valuable kind of discipline in its acquisition. For this reason he would have us confine ourselves almost entirely to science.

It is with the carrying out of the utilitarian view of education, that the 'Real Schools' of Germany mostly concern themselves. These took their rise in the celebrated institutions at Halle, founded by August Hermann Francke; whose system was based upon distinctly realistic principles, in opposition to the formal one-sided education of the time, which concerned itself almost entirely with language.[1]

Whether we look upon the 'training' view or the 'practical' view of education as the more important, neither should be adopted exclusively. All are pretty well agreed that the distinction should in no case be made in early education, but that the two views should be amalgamated, special attention being given to the cultivation of the child. The two functions cannot properly be separated in the actual work, even later on, no matter what the subjects taught. It is the educator's business to harmonise them, so that, while the essentially human training has its proper share of attention, all that will fit the pupil for his future

[1] The word 'real' in connection with schools was first used it seems by J. S. Semler, of Halle, in 1706, who speaks of his establishment as 'a mechanical and mathematical real school.' Hecker, one of Francke's early disciples, was the first to found a 'real' school in Berlin in 1747. The Prussian Government has refused to support the Real Schools, and throws their maintenance upon the towns where they exist. It has, however, since 1871, recognised their efficiency.

work shall not be neglected, wherever it is feasible to aid its cultivation. It is only after general education has secured the development of the mind, and disciplined it to skilled effort, that professional education, properly speaking, should begin.

Taking into account both functions of education, we may say that, when a person has stored his mind with all serviceable materials, and cultivated his faculties to such an extent that he is able to make a vigorous use of the knowledge he possesses; when his moral power has become so developed and experienced that he not only has a delicate appreciation of duty, but his conscience gives its sanction to that which his intelligence dictates; when his will has been strengthened to such a degree that he is enabled to act with decision, and bear with constancy the strain of difficulty and disappointment; when he recognises his relationship to a Superior Being, and realises that his every action may have an influence not only for time but for eternity; and lastly, when his mind has acquired such keen susceptibility to the beauties both of Nature and of Art, that it adds to his pleasures and softens his cares—then he is educated.

The word education has been employed in a great variety of ways. This diversity arises principally from two causes; either from the more or less complete limitation of the view to one of the functions just given, or from the difference of standpoint. Some writers view education as the *means* or *process* we adopt for securing the objects aimed at; others as the *result* of such expedients, that is, the actual cultivation and acquisition secured. Many writers, again, limit the word education to the more distinctly formative period of early life, partly because this is the

period for which the teacher is more particularly responsible, and partly because it is of far greater importance. And while we must not forget the broader aspect of education it is with this more limited portion of the work that we are here most immediately concerned.

In childhood and youth everything wears a fresh and interesting aspect, many things are new and curious, the world has not yet grown commonplace; in a word, the mind is less burdened with past impressions, and hence is much more powerfully susceptible to educational influences. It goes out to meet them, as it were, with all its vigour, and, from the vividness and interest of the experience, it is more deeply affected than in later years. The ideas are thus retained for a longer period, and recalled with greater readiness and intensity at any future time.

As a streamlet near its source may readily be diverted or confined to its bed, while the larger river is much less within control, so the mind, during childhood, is easily turned in any required direction, either mental or moral, until right action has become habitual to it. But, if neglected, or allowed to assume a wrong bent for any considerable length of time, it becomes to a large extent settled, and beyond our power to change its course. Hence the importance rightly attached to early education, and also to a great degree the significance and responsibility of the work of the teacher.

In the early years the parents' influence should, among other things, fit the child for the hands of the teacher; and, in the succeeding time, the influence of the latter, with that of the parents, should prepare the pupil for the enjoyment of that moral and intellectual

freedom without license, which should be the outcome of such combined cultivation. It must be borne in mind, also, that the education provided by the school, lasting but a few years at most, cannot carry on the work to perfection; it can only lead the individual some distance on the road, and give him the power and the disposition to continue the journey himself, after the guidance and encouragement of the teacher are withdrawn.

Large as is the influence of education, we must not look upon it, even in the broadest sense, as responsible for all the differences of character which we see exhibited. Helvetius, indeed, asserts that 'man is the product of his education'[1]; and Locke seems to have held, in a large measure, a similar view; for he says 'the difference to be found in the manners and abilities of men is owing more to their education than to anything else,' and refers again to the same point on several occasions. But, to follow Helvetius is to grant to education a greater power than really belongs to it. The mind at birth is *not* a clear sheet upon which education writes certain characters, but possesses, undoubtedly, an inherited capability of development —different in different individuals—which is a very important factor in the result achieved by education. The healthy child of intellectual parents should be able to advance much more rapidly than the child of parents who have little mental ability; and doubtless in the great majority of cases this is so. M. Ribot has dealt very successfully with this problem of heredity, and both he and Captain Francis Galton have shown us, in a very remarkable way, that even

[1] He says also, 'All men are born equal and with equal faculties, and education alone produces a difference between them.'

genius tends to be inherited. Nor is this inherited capability confined to the intellect; it affects the morals also. There are some children to whom advancement in morality is as difficult as advancement in mental ability is in others. There is also a moral idiocy, as well as an idiocy of intellect, and the two frequently do not go together.

The remark is as old as Aristotle that 'education can improve nature, but not completely change it'; it has nothing to do with creation or destruction, for both alike are impossible to it; it can only strengthen and improve, or weaken and control. It can bring out the innate power of the mind, be it great or small, to its fullest extent; but beyond this limit it cannot go. We cannot take any given mind, with all its faculties complete, and of it, by the most perfect educational process, make a mind of any order we please. The mind is not a certain mass of material, which it needs but the philosopher's stone of education to fuse and convert into any precious metal we may require; but a living thing, growing from within outwards according to laws of its own, which must be attended to in our attempts to strengthen and direct this development. The idea, then, of *drawing out* must not lead us to forget that the faculties are active not passive; and that the educator's work is pretty much that of securing the most favourable conditions for growth, and supplying the requisite materials.

The careful and thorough realisation of the meaning and scope of education is especially important to teachers; it will preserve us from taking any narrow view of our duty, it will keep the fact constantly before us that the child is an undeveloped man, and it will prevent our confusing the means with the end.

But, at the same time, we must be careful to appreciate, in its clearest and sharpest outlines, the possibly limited portion of the work, which it is our special business to attend to at the moment. We must recognise distinctly how much we can accomplish, and how much we must forego. We must not dream of a palace, and forget to build properly the plain brick wall, which, it may be, is our particular share of the great design. It will not do to talk largely of forming mental habits, 'training the mind,' and so on, and forget to give that sound connected substratum of knowledge, without which education, in its true sense, is impossible.

CHAPTER II.

THREE LINES OF EDUCATIONAL DEVELOPMENT.

In considering the training and growth of the child, it is usual to divide education into five branches, 1. physical, 2. intellectual, 3. moral, 4. religious, and 5. æsthetic. It will, however, be sufficient for our present object to view the last three in conjunction, as the cultivation of the *emotional nature*. Though we may usefully group educational work for purposes of discussion, in practice the divisions, although broadly distinguished, intermingle and affect one another in various ways; so that we cannot rightly regard them as definitely distinct and independent.

Without some care for the health and even the comfort of the body, the intellect cannot be made to concentrate itself upon its work as it should do; the attention is disturbed, the energy diminished, and the continuity of action often seriously interfered with. On the other hand, physical well-being has very frequently a moral significance. Conversely both the intellect and the morals exert a powerful reciprocal action upon the body. Many mental acts have a moral side. Morality without intelligence would be incomplete; our conceptions of right and wrong would be of the haziest description, or well-nigh impossible; we should not be able to give a reason for our actions,

and we should never be brought to act from a sense of duty. The morals, again, affect the intellect to a large extent, and their influence is needed to induce us voluntarily to undergo the work, which is necessary to the complete control and development of the intellectual powers. 'Education,' writes Willm, 'should be religious that it may be more assuredly moral; moral to be correctly religious; and intellectual for the sake alike of religion and morality. . . . Each sentiment will become the more certainly what it ought to be, if all the others are concurrently cultivated. The moral sentiments will be strengthened by the culture of the religious feelings, and the sentiments of the beautiful; the religious part of our nature will be fortified by our moral and æsthetical education; the sentiment of the beautiful will be enriched by the inspiration of the conscience, moral and religious; and, in harmony, these will all profit by the riches of the intellect and the justness of the judgment.'

1. Education of the Body.—Professor Bain would remove the consideration of physical education almost entirely from the teacher's work. 'The fact,' he says, 'of bodily health or vigour is a leading postulate in bodily or mental training, but the trainer does not take upon himself to lay down rules of hygiene.' Directly, this may be true, but they concern him narrowly nevertheless; he needs all the same to be well acquainted with them, and to secure as far as possible their being carried out into practice. Indirectly, the teacher is to a considerable extent answerable for the physical welfare of his pupils, and the lamentable effects of school life upon young children, which we so frequently hear of nowadays, are in a

great measure the result of negligence in this respect. There can be no doubt that, if intellectual education is to be a success, there must be 'the sound mind in the sound body'; and, though the teacher has a right to expect this when the child is placed under his care, it is also his business to see that the physical circumstances affecting the child during school hours, and the methods employed, do not conduce to harmful bodily results. Considerations of physical well-being will influence every department of school work. They will considerably modify the arrangements included under organisation; they will settle the nature and conditions of school drill; they will abolish all injurious punishments, as holding up weights or going without food, so frequently resorted to in former times; and they will limit and affect in many ways the details of teaching. To mention only a few points that lie upon the surface: the teacher will secure a proper supply of fresh air, light, and warmth; he will see that all unnatural and injurious postures are avoided; he will not allow too long a continuance in one position, or too long a strain upon the brain; he will recognise the necessity of relief and variety, and the deadening effect of long-continued mere mechanical drill-work. More than this, it is his duty to seize every available occasion for helping forward physical development, and for this purpose the playground will be found to afford many valuable opportunities. The teacher can do much to encourage recreation and useful exercises, and, at the same time, he can keep within proper limits any that tend to overtax the strength. With athletes he has little to do, but with healthy, active, and happy children a very great deal. If the educator look simply to the

mental side of the pupil's nature, he may be tempted to foster the too early or the too rapid development of the intellect. The encouragement of precocity is a thing not confined to homes, but it is distinctly to be discountenanced wherever it may be found.

2. Education of the Intellect.—The mind is doubtless rightly to be viewed as a whole, manifesting its power in different ways, rather than as a mass of separate and independent faculties; still its various modes of action—differing in manifestation, direction, and, frequently, in the objects operated upon—may usefully be regarded by the teacher as the result of different mental forces. The complex action of the faculties will be better understood when we have carefully considered in detail the various elements which go to make up this complexity of operation. We shall also be the better able to provide for and direct the cultivation of the mind, if we thus isolate and fix the attention upon those distinguishing and predominating phases of activity which have given names to the various powers—as memory, imagination, reason, and so on. We may do this without asserting anything respecting the independence or singleness of action of the particular faculties, and without forgetting the intimate association which exists between the various phases so named. The ordinary faculties are, as it were, the spectrum colours of the mind; and as in the case of light there are innumerable gradations of tint, so in the mind there are numberless slightly different modes of operation. But as we find it convenient to roughly group the spectrum tints into seven colours, so it is useful to give special names to the more distinct phases of mental action. And, as all the colours may be compounded from three

primaries, so, what we ordinarily denominate faculties, we shall find may be ultimately resolved into three elementary processes. 'If we do not lose sight of the fact,' remarks Ribot, 'that the various faculties are only the unknown causes of known phenomena, that they are only a convenient means of classifying facts and speaking of them; if we do not fall into the common error of making them substantial entities, personages who sometimes agree and sometimes differ, and who form a little republic in intelligence; we do not see that there can be anything reprehensible in this distribution into faculties, in conformity with the rules of a healthy method and a good natural classification.'

It is not easy, however, to make any complete list of the mental powers, and no very satisfactory classification of them seems to have been arrived at, or, at least, to be at all generally adopted. Professor Bain discards the ordinary style of analysis, and points out three properties only of mental action as fundamentally distinct:—

1. Discrimination or consciousness of difference.
2. Retentiveness—the basis of memory and habit.
3. Detection of similarity, or consciousness of agreement.[1]

He claims that these three great functions comprehend all the commonly recognised faculties included under the intellect proper; that is, excluding the feelings and volition or will.

The principal modes of mental action ordinarily recognised are the following:—sensation, perception, conception, attention, memory, imagination, reason, judgment, and reflection. Much difficulty is, how-

[1] See 'Senses and Intellect.'

ever, experienced by the student of mental science from the want of logical consistency in the employment of the common terms, one writer frequently including under one name more or less than another, or even using it in a quite different sense.

Again, no *exact* order of the development of the faculties has been made out, inasmuch as the action of one involves the action of others to a greater or less extent. Still certain faculties act with their full strength at a much later period than others, and may be injuriously affected by being prematurely forced into operation. Thus one faculty may be characteristic of a particular period of childhood, and may be very usefully developed by frequent exercise, while another may still be very weak, and would be harmed by any strain brought to bear upon it to hasten its development. The teacher therefore needs to bear in mind certain broad rules which go some distance towards settling for him the sequence and severity of studies at certain periods ; as well as the suitability of certain devices he makes use of in his methods. Thus the frequent and regular exercise of the senses as the means of forming perceptions may take place almost from the cradle, the observation being appealed to, the attention gradually steadied, and use being made of the child's natural craving for knowledge and experience. The simpler forms of conception also are early developed, while the power of abstraction is of somewhat later growth. Memory soon comes into action ; and attention may be usefully exercised up to its strength from a very early date, although the continuous and concentrated form of this power can only be successfully counted upon when it has had considerable training. Imagination usually precedes

reason, which is weak until the mind is somewhat developed. Judgment and reflection are both late faculties; the latter needing the employment, in a greater or less degree, of all those which precede it. 'Reflection,' says Dugald Stewart, 'is the last of our intellectual faculties that unfolds itself; and in by far the greater number of individuals it never unfolds itself in any considerable degree.'

3. The Education of the Emotional Nature and the Will.—Of the three great divisions of mind—intellect, emotion, and volition—the last two still remain to be briefly mentioned. To give bodily vigour and intellectual ability, without any moral foundation to the character, is to give an education, not only wanting in completeness, but in balance; an education which may be mischievous both to the individual and to society.

The emotions need to be gradually brought more or less under control; the sense of duty awakened; the moral judgment formed; wrong tendencies corrected; and the recognition of the beauty of right and order, of nature and art, established; while the will—developed by exercise, enlightened by experience, and stimulated by proper motives—assumes the guidance of the whole nature, and steers it in accordance with fixed principles of right and duty.

Further, we have to lead the child step by step from dependence on an earthly father, and obedience to that father's will and authority, to fashion his life in accordance with the Divine Will, and to recognise in the Supreme Being a Heavenly Father in whom 'we live and move and have our being,' and who is 'our refuge and strength, a very present help in trouble.'

In endeavouring to train to right action, we need to take into consideration then :—

1. The *initiative power*, that is, the *motives*—emotional impulses or other sources whence action springs.

2. The *legislative power*, that is, the action of the *moral intelligence and judgment*, which decides whether an action is right or wrong, and hence whether it should be done or not.

3. The *administrative power*, that is, the power of *will*, whereby we adhere to and carry out the decisions arrived at by the intellect and the conscience.

4. The *reflective power*, whereby we recognise the result or consequence of the action as in accordance with our previous judgment or not, and which has a considerable influence on succeeding actions.

These need to be continually kept in sight by the educator, and each must receive attention in accordance with the state of the pupil's advancement; but it must not be expected that all will act from the first, or even until considerable training and development have been given to the child's nature. The simplest phases of emotion, *e.g.* of sympathy or repulsion, are to be traced back to the perceptional stage; they are developed side by side with ideas, and may be made use of, more or less, almost from the beginning. By experience, teaching, and the development of the moral intelligence there becomes gradually fixed in the mind a perception of the distinction between right and wrong, and of the necessity of choosing the one and avoiding the other. The growth of the *sense of duty* is, however, very slow; and while we should exercise it as far as its strength goes, and have its cultivation ever before us, it cannot be safely or

usefully appealed to alone in the early stages. At first the child is swayed almost entirely by personal sympathy, by authority, and by pleasure and pain connected with the acts themselves; its notions of right and wrong are pretty much those of *allowed or forbidden*; but there gradually arises the conciousness of independence, of power to act in a particular way according to the determination we form. The *will* comes to be recognised as something quite distinct from ideas or from emotions, and the child comes to feel that he must not only make a choice, but that he must adhere to the particular course of conduct chosen. This determinative power grows with effort, and, as we shall find later on, the teacher may do much to foster and direct its growth.

It is necessary, too, that the child should not only feel the pleasure or pain attendant upon certain actions, but should recognise that pleasure or pain is the more or less remote consequence of particular lines of conduct, the pleasure of duty fulfilled from proper motives being of the highest kind. Where the effect is immediate the connection is early perceived, but the reflective power necessary to the perception of remoter results is of much later growth, and must not be counted upon until considerable development and experience have been gained. The *discipline of consequences*, as it has been called, depends upon this power of recognition, and will be effective only in proportion to its development.

The teacher has to consider how he will best give effect to the proper growth of each power, what order he will adopt in his moral teaching, in what degree he will appeal to each faculty at different periods, what inducements he will hold out, what

measures of coercion he will adopt, and what use is to be made of the influences of example and surrounding circumstances. And this has to be done with a wise discretion, a loving sympathy for the child, a patience of waywardness and backsliding, a justness of judgment, a keenness of insight, a moderation of control, and a watchfulness that never sleeps. These make the work as difficult as it is important.

We have not only to teach a child to *know* the right, or even to implant in him the *desire* for right conduct, but also to lead him gradually to perceive the *means* whereby right action may be made possible; and we must gradually unfold to him, as he is able to bear it, the *reasons* for such and such an act being performed. This is more especially necessary where most likely to be neglected, in that large class of actions which do not seem of much importance in themselves but have a wrong tendency; the direction of which is liable to be left to chance, and whose power is frequently unrealised, it is to be feared, even by the teacher himself.

CHAPTER III.

SOME LESSONS TO BE LEARNED FROM A BRIEF CONSIDERATION OF SENSATION, PERCEPTION, CONCEPTION, AND ATTENTION.

A. *Sensation, Perception, and Conception.*

THE *senses* are usually spoken of as five in number—sight, hearing, touch, smell, and taste. There is also a 'muscular sense,' and a variety of internal sensations connected with organic life; with these latter, however, we have little to do.

The organs of the outer senses are various *nerve groups* connecting certain parts of the body—as the eye, the ear, the mouth, the nose, and the skin—directly or indirectly with the brain. Each group of nerves, under ordinary circumstances, answers only to its own class of stimuli. Thus the eye is affected by light, the ear by sound, the skin by touch, the nose by smells or odours, and certain nerves of the mouth by the property of bodies called taste. Those nerves which convey impressions to the brain are called *sensory, afferent,* or *in-carrying* nerves; while those which transmit messages outwards to the various parts of the body are termed *motor, efferent,* or *out-carrying.*

All nerve impressions are finally transmitted to,

and all return messages received from, the groups of nerve matter lying along, and forming the base of, the brain. These sensory ganglia are called collectively the *sensorium.*[1] In all probability the sensorium is the seat of consciousness, and forms the central station, in connection on the one side with the various parts of the body, and on the other with the higher portion of the brain called the cerebrum. According to this view, the impressions sent up to the cerebrum act as materials for the mind to work upon, and the results, or thoughts, are, as it were, telegraphed down again to the sensorium, before we become conscious of them. Thus while the cerebrum acts as the legislative power of the mind, the sensorium—having the whole of the nerves under its control—alone publishes the results, or performs the administrative functions.

When some outward stimulus—the action of some external body or influence—operates upon the nerves of a particular sense in an appropriate manner, the immediate result of the contact is called a *sense-impression.* Directly this nervous excitement affects the consciousness, and we feel that certain changes have 'occurred in our own 'subjective' state, but do not refer these changes to any external or objective source,' the sense impression has become a *sensation.* The attention is here centred not upon the cause, but upon the feeling produced. As we become conscious of the latter, the mind at once refers the sense impressions to the origin of the nerves which convey them to the brain, and this leads to the localisation of the sensation, and the identification of the

[1] See Carpenter's *Mental Physiology*—a valuable book to the teacher, and one to which I have been frequently indebted.

outward source of the affection. The attention is now transferred from the feeling to the outer cause, and the recognition of this has extended the sensation into a *perception*. But were it not for the power of the mind to continue and recall the effects, this phase of consciousness would cease to exist directly the impressing force were withdrawn. The perception-results, however, are mentally registered, and become items of knowledge concerning some external body, that is, become *ideas*, or notions, which may be recalled at a future time. This apprehension and retention by the mind of certain particulars of objects is the simplest form of *ideation*.

A sensation, then, is the mental side of a sense-impression—the addition of consciousness ; a perception implies a sensation together with the recognition of the cause ; the stored result of a perception is an elementary idea. The senses are merely reporters, and it depends upon the mind whether the communications are made use of or not. Perception indirectly makes us acquainted with objects ; directly, it is concerned with properties or qualities, as form, colour, size, &c. ; but when a number of these fundamental ideas are compounded, or associated together, we gain an idea of the body to which the qualities belong. The first notions are exceedingly limited and imperfect ; improved attention, much experience, and many corrections are necessary before clearness is arrived at. These corrections arise mainly from the comparison of the perceptions obtained through one sense with those recorded through others. After the formation and fixing of the perception-results, we may recognise several developments as separate in kind, though in actual experience they run one into

another in a very complex way. *First*, we have the *reproduction of simple ideas* from the impressions stored in the mind by a kind of involuntary memory. *Secondly*, the organisation and combination of all the essential features of a group of simple ideas, so as to form a general idea or common notion of a thing as one of a class—the individual peculiarities and details, not essential to the recognition of the object, being omitted. This process of fusion we may call *simple generalisation*, and the sign of a general idea or notion so formed is a common noun. *Thirdly*, we learn later on to separate a certain quality from a class of objects, and to contemplate it as a thing apart from the associated concretes, recognising it as having no separate existence, yet perfectly conceivable by the mind, as whiteness or wisdom. This process may be termed *simple abstraction*, and the signs of the products obtained are abstract nouns. And lastly, we have the power whereby the mind realises, or pictures out to itself, the ideas suggested to it.

All these exercises of mind extending beyond mere perception, and concerned with the manipulation or realisation of ideas, may be conveniently grouped together under one common term—*conception*, though the word has been used, at different times, to denote each of the processes separately. Conception, therefore, is the faculty whereby the products of perception are grouped, and to a certain extent, recombined, and the complex ideas thus formed are imaged forth to the mind. Thus we see conception shades into memory on the one hand, and imagination on the other.

Perception and conception thus supply us with the materials for thought, without which the higher

forms of intellectual activity could not take place, and words would be meaningless. It is true that a large share of our knowledge is not the direct result of our perceptions, but is received on the testimony of others; still, after all, it arises immediately or mediately from perception, and before the knowledge communicated to us can be judged of, or even understood, we must have gone through a wide range of sense experience for ourselves. When once a clear and fixed idea has been gained this may be recalled by means of words, but an entirely new perception cannot be gained or imparted in this way. It is impossible to give a man, born blind, any adequate idea of colour; one blind man's notion of red was that it was something like the braying of a trumpet. This shows us that language is merely a set of symbols, and cannot of itself give knowledge until the ideas for which the words stand have been arrived at in other ways. Few principles have been more largely insisted on by educators, from quite early times, than that we should give ideas in teaching, not mere words. This is perfectly correct, but we should not run into the opposite extreme, and endeavour to give ideas without the corresponding words. The teacher should bear in mind that both things are necessary, the formation of complete and correct notions, and the power to express these ideas in suitable language. Not only is the direct progress from ideas to words of value, but also frequently the converse process—the passage from words back again to things.

The senses have not inaptly been termed the 'five gateways of knowledge,' inasmuch as they form the means of communication between the mind and the outer world. The senses, as the handmaids of

perception, are of eminent use in the acquisition of those fundamental facts, which are based on observation; and, for this reason, they should be sedulously cultivated, apart from any increased acuteness which may be useful in other ways. 'The education of the senses neglected, all after education partakes of a drowsiness, a haziness, an insufficiency, which it is impossible to cure.' Young children, then, should be supplied with plenty of objects on which to exercise their senses; let them handle, see, hear, taste, and smell things for themselves, the parent or teacher giving all necessary guidance and aid. The observation should be so directed that they may grasp the essential characteristics of things, and learn to recognise both the likenesses and the differences which objects present to the senses.

A certain amount of effort of mind or attention is necessary even for sensation, and still more for perception. Frequently when the attention is distracted by other things the impressions made on the senses are not translated even into sensations. We may be close to a loud ticking clock for hours, and be utterly unconscious of any noise. This shows us that in training the perceptive faculty, the great thing is to catch the attention, and direct the mind to what it is to recognise.

The three qualities we should aim at fostering in the action of the senses and the perceptive faculty are:—

1. Rapidity of reception.
2. Intensity or vividness of impression.
3. Vivacity in seizing details.

Each of these is a natural gift possessed from birth (probably through the action of heredity), in a

much greater degree by some individuals than by others; yet all three are capable of great development and improvement. The first depends upon the presentation to the mind of a large number of objects, and gives quickness of recognition. The second depends more upon the extent of the change from a previous state, than upon the absolute amount of stimulus applied, and leads to depth or firmness of mental impression. The third depends upon the amount of attention, and results in clearness and fulness of perception. Robert Houdin, the conjurer, trained the sense of sight in his son to such a degree, that after a glance at such a thing, say, as a toy shop, or a library, he was able to name a most wonderful list of objects and details observed.

The consideration of the exercises most suited to early childhood will prevent us burdening the child too soon with book work. On the other hand, because they appeal largely to the senses, and offer such excellent training to the perceptive faculty, lessons on 'form' and 'colour,' and 'object lessons,' are of great value to young children.[1] For a similar reason books for the young should be illustrated with good pictures, and frequent use should be made by the teacher of the blackboard. In this connection also the Kindergarten system is most admirable, but it should be kept in its proper place, and not allowed to become a mere hobby, so as to usurp the place of later exercises.

[1] It will be seen from the above that the too frequent plan of teaching an object lesson without the object, or even without a model or picture, merely to impart so much book knowledge, is entirely beside the mark.

B. *Attention.*

Attention perhaps has less claim than almost any other faculty to be regarded as single. It is rather the co-ordinating and controlling force exerted by the mind upon its various powers, so as to bring into strongest action this or that particular phase of its activity. It narrows our mental working into one channel, and eventually renders it subservient to the will. It is essentially a limiting and selective power, so far as *breadth* or *extensity* of mental action is concerned, and an augmentative power with regard to the *strength* or *intensity* of such action. The mind, having by its aid more or less completely excluded all other objects but the chosen one, directs its whole force upon this. It is, as it were, the means possessed by the mind of focussing itself upon an object; the more its range is narrowed, the greater is the power it possesses of dealing with that which is left.

Attention is necessary to the correct use of all the faculties. It is the essence of mental work and has often been spoken of as an indispensable element of genius. It affects all sides of the intellect and is one of the very foundations upon which memory is built. It also acts upon the emotional nature, tending to withdraw us from painful or injurious states of feeling, and to select for us those which are beneficial. So great is its power, that even the intensest bodily pain may not be felt when the mind is strongly directed to other things. It is said that Robert Hall was unconscious of a very painful disease while preaching; and many a soldier does not know he is wounded, until the excitement of battle cools down,

and he is able to direct his mind to other things than fighting. The importance of attention, in fact, can scarcely be over-estimated. No more valuable mental habit can be formed in children, and it behoves the teacher to give earnest heed to this fact in all departments of his work.

The concentration of mind produced by attention, when the result of an effort of will, is accompanied by a sense of strain, and this tension—suggested by the meaning of the word attention—seems to be the great source of mental fatigue. After an effort of this kind, change in the form of activity, or change of object, affords rest; just as the eye after being completely fatigued by looking at red, finds rest in regarding green. Now, while continuing the effort long enough to give thorough exercise to the faculty, we should be careful, in the case of children, not to strain their attention. Hence one great reason for variety in teaching; and this variety may be given without humouring the natural volatility of children. It is change of interest, change of view, change of manner, rather than frequent change of subject, which is needed.

The principal qualities of attention seem to be (1) *vivacity*—or the power of transferring the mental gaze from one thing to another; (2) *intensity*—or the power of concentrating the mind wholly upon a single point; and, (3) *continuity*—or lasting power.

Some children seem naturally to possess a larger share of the faculty of attention than others, in fact this power varies very greatly in different individuals, not only in degree but in kind. Some can, with the greatest ease, transfer their attention from object to object, while others take a long time to change, but

possess greater depth and acuteness. The first, as Dr. Carpenter points out, need training to greater fixity ; the second to more rapid change of direction. Some children give attention easily to some things, and with difficulty to others ; some have their attention apparently absorbed by external things, some by day-dreams or their own thoughts.

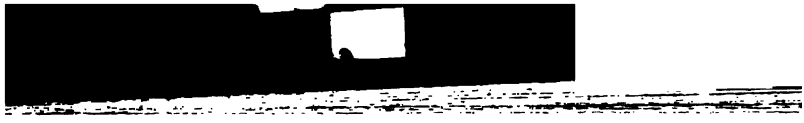
The power of the attention may be controlled in two quite different ways : (1) *from without*, through the interest aroused by external things *attracting it* ; and (2) *from within*, by the action of the will *compelling it*. The first acts spontaneously, and is almost the only means of control in the case of young children, the will having as yet hardly the slightest power of government. The second is the result of habit, and of gradual growth. By practice the will gains more and more power over the attention, until at last we can compel the mind to contemplate earnestly, and for a certain length of time, even very unpleasant things. This gradual domination of attention by the will is one of the most important points in education.

In nearly all cases the attention of children may be fixed on things ; but with difficulty upon ideas presented merely in words, unless well within their experience, and upon subjects interesting to them. This affords us a further reason why we should give little ones plenty to see and handle. It fixes an additional value to 'object lessons,' and shows us how unsuitable is mere *lecture* as an early method of teaching. The fact too, that young children of the same age are not all capable of giving the same degree of attention, will lead the teacher to make numerous small modifications in his practice and

treatment, without which much good would be lost and mischief result.

A young child's attention, then, is to be secured by engaging his sympathy, by interesting him, by finding him something to do, by rendering the object to which we wish him to give his mind more attractive than its surroundings. To do this effectively often requires all the devices of manner and skill of presentment which the teacher has at his command. It is the necessity for attractiveness which makes brightly coloured pictures so useful in teaching little ones. For a similar reason woodcuts in reading books are not only helpful in giving clearness of idea, but also in adding interest.

Attention in the case of the young cannot be enforced by commands or punishment. This can only take place later on when the will has asserted its control. A little child's attention cannot be given by mere effort to an uninteresting thing, and is not to be depended upon. To scold such a one for inattention is to blame him for not putting into action a power which he does not possess, and will only possess when it has by long practice gradually developed itself. Later on punishment may at times have a use, but it is generally a dangerous motive to employ in the case of attention. It is extremely difficult to estimate the exact amount of effort made; it may have been greater than we judge, and the punishment consequently unjust. It has been noted that it is the *habit* of attention—the ready conscious direction of the mind by an effort of will—that we wish to bring about. Now attention obeys the ordinary law of exercise; each effort makes the next one easier of performance. Hence as the child's age and experience



increase, and his will develops, we may exact more and more of attention from him ; making allowances for necessary defects, but keeping well up to the limit of his power. We have not only to supply opportunities, but frequently to lend our aid with motives, until the child has learned to exercise his attention entirely by his power of self-control. We must be on the watch to guard against that desultory attention which acts by fits and starts, and we must not be deceived by the listless fixed gaze of the eye when the mind is far away.

We must look also to the child's physical surroundings. Long continuance in one posture, a hot close room, a dazzling light, bodily fatigue or want of ease, and many other similar things, all affect attention prejudicially ; and their action upon the child should be prevented as far as possible. To try to force attention in cases of physical fatigue or uneasiness is to produce an injurious nervous prostration.

It is important also to give a child no more to do than he can accomplish well. The hurried scramble to get over a large amount of work is inimical to that depth of attention which is so valuable ; and leads to that partial phase of concentration which ends in superficiality, and in half-formed ideas. In no other direction will educational training tell more powerfully or beneficially than in guiding and developing the power of attention—from the first efforts at observation, to those disciplined and continuous efforts where the mind is able to exert its whole force within the range prescribed by the will.

CHAPTER IV.

MEMORY IN EDUCATION.

IT has been seen that if an impression is weak, its effect may not be recognised, or, at most, it may affect the consciousness but for an instant. If, however, the impression is stronger it passes to the portion of the brain concerned with the higher processes, and forms an idea. Directly a second idea presents itself the first passes from the consciousness, but it is not lost; in some subtle way that we do not understand it is registered, and may at a future time, under suitable conditions, be recalled. So any idea which has once been distinctly before the mind may, within a variable time, be again brought to light by an effort of the will. It thus appears that the mind possesses the power of taking hold of ideas and *fixing* them, and further, in connection with this registering power, the capability of *reproducing* the ideas thus laid by.

This phase of the mind's action in storing its products, and in reviving them at a future time when needed, the recollection being accompanied by a recognition of their having previously occupied the consciousness, we call *memory*. 'When our intuitions are revived,' says Dr. Morell, 'so that we are fully conscious of the affinity between the type and the antitype, then we are said to possess memory properly

so called.' Persons who possess the power of keeping a large number of consciously stored ideas just ready for use, and who can at once bring them forward when wanted, are said to be possessed of a *good memory.* A good memory, however, does not, in the vast majority of cases, mean a facile power of remembering all classes of ideas alike ; this probably very few people possess. What particular class of facts the mind can most readily treat in this way depends upon individual power and previous training. 'We are all blockheads in something,' remarks Professor Bain, 'some of us fail in mechanical aptitude, some in music, some in languages, some in science. Memory in one of these lines of incapacity is a rope of sand.'

Most of us are apt to take it for granted that the power of acquiring and retaining for use new ideas is unlimited ; but we may soon convince ourselves that this is not so. Minds vary very largely in this respect, of course, and the boundary in most cases may not be reached ; but there can be no doubt that such a limit exists for each particular mind, and that no matter how studious we may be, beyond a certain point the acquisition of fresh information means also the letting slip part of that which previously formed our available stock of mental wealth.

There is reason to believe that the ideas reproduced by the action of the memory affect the same portions of the nervous mechanism—and in the same way, though almost always in a less powerful degree—which were affected in the original formation of the idea, the cause of the affection only being different. Professor Bain mentions the very remarkable fact, as having been determined by experiment, that 'the persistent imagination of a bright colour fatigues the nerves of sight.'

In many instances an idea comes to occupy the mind so frequently, and each time, it may be, in a

slightly changed form, or in other connections, that it is at length grasped in all its completeness and variety of aspect. It is associated with other similar ideas, becomes exactly defined by its companionship, and is assimilated, as it were, into the fibre of the mind. When we reproduce it for use we are quite unconscious of the source from which it came, and of the individual forms of which it was compounded. Here the antitype has vanished, and though the storing of such ideas is really a most valuable exercise of memory, broadly viewed, we do not usually speak of it as such. Powerful minds assimilate complex ideas in this way far more readily and completely than ordinary minds, so that large stores of information, which are simply retained as an act of what is usually called memory by the latter, are by the former grasped by a kind of instinct in all their fulness and diversity of form, and are ready at any instant for any use to which they can be applied. The more our knowledge is of this digested kind, the more truly may it be said that it 'is power.' Newton and Shakespeare, though not possessed of any remarkable faculty of memory in the ordinary sense, readily assimilated knowledge in this perfect way; and hence were able to make such powerful and extensive use of it. With most men the process of assimilation is a slow one, but it is a sure one.

Though the power of memory, then, is an inherent quality of the mind, yet it may be aided in its action in many ways; and accustoming it to the ready use of these aids is what we really mean by training the memory. It will therefore be necessary, if we would clearly understand the working of memory, and employ it most usefully in education, to consider, not

only the means for strengthening the retention of ideas, and aiding their ready reproduction, but also the initial process of preparing and taking hold of the material; that is, we shall have to make ourselves acquainted with the three stages—apprehension, retention, and reproduction. True they interfuse a good deal, and in practice cannot be separated; but it will conduce to clearness if we here notice them separately.

A. *Apprehension.*

By apprehension is here meant the mode of taking hold of the ideas we wish to fix in the mind, the method we adopt of feeding the memory as it were—the preparatory operation to memory proper. This is dependent in a large measure on the manner of presentation. We may present material to the memory in many ways, with the addition of special preparation and devices to aid its action, or without them. When we present ideas simply as so many dissociated fragments, or independent facts, we are exercising it in the lowest, because least helpful and intelligent, way. We are trusting to the retentive or fixing power alone, and all we ask of the mind is, that it shall carry the material presented without acting upon it, and so deliver it up again in exactly the same form in which it was received.

To this exercise of the memory the terms mechanical, portative, local, and verbal have been applied. There are some classes of facts which we need to treat in this way, but even in such cases we should reduce the mechanical nature of the operation as much as possible, and at least secure that *ideas* are presented to the mind, not mere words remembered

by their sounds only. We shall find that some aid, too, may be given in most cases of the kind. The exercise of the memory merely for the purpose of carrying information in one form—learning 'by rote,' or 'by heart,' as it is called—has been frequently much decried; and some exceedingly roundabout methods of learning languages, and other things, have been invented in order to avoid it. But the fault lies not in using the power, for it has a distinct province of its own, but in applying it to things much better learned in other ways.

To persons who possess the ability in a marked degree of memorising a form of words, the temptation is very great to save themselves trouble, by relying on this power alone. 'An unskilful teacher,' remarks Archbishop Whately, 'is content to put before his pupils what they have to learn, and ascertaining that they remember it; and thus those of them whose memory is ready and retentive, have their mind left in a perfectly passive state, and are like a person always carried about in a sedan chair, till he has almost lost the use of his limbs. And then it is made a wonder that a person who has been so well taught, and who was so quick in learning and remembering, should not prove an able man; which is about as reasonable as to expect that a copious cistern, if filled, should be converted into a perennial fountain.'

The exercise of memory, then, without reason or judgment, should not be resorted to when any higher method can be applied; when it is so, the result is 'cram.' Usually when facts are crammed they are crushed into the mind to serve some temporary purpose, and are as rapidly lost as they were gained, without leaving any benefit behind. One of the very

worst forms of 'cram' is the learning of answers to questions likely to come in an examination. It destroys all independent intelligence, and reduces the pupil to the level of a mere machine.

Passing to the higher and more valuable exercises of the faculty under consideration, we find that the way in which we learn a thing is a most important element in its successful manipulation by the memory. Much time is saved and power gained by the proper preparation of the material—the transformation of it by the use of the other faculties into the best form for the memory to hold, the condensation of it by retaining essentials only, and the addition of any subsidiary aids which may lend their assistance. The following are some of the most important points to be borne in mind in presenting facts to the memory, so as to give the maximum of readiness, usefulness, and intelligence.

1. We should carefully **discriminate** between important and unimportant facts, principal and subordinate, the thing illustrated and the illustration, a general truth and the individual example, and fix the mind firmly upon the former in each case.

In reading a book much valuable time is frequently misspent from trying to remember too much at once. By mastering the fundamental portions, the skeleton as it were, first, the rest falls naturally into its place, and we gain a grasp of the whole, which rarely comes of mere unmethodical industry. Of course discrimination of this kind exists only to a very small extent in children; it is a matter of training. The teacher, therefore, should make the best of his opportunities, and in his own teaching not only make the most important things the most prominent, but see also that the children recognise the facts which it is specially important

they should remember. Very rarely does it seem that pupils are taught nowadays how to study. They are told what to do, and left to discover the best way for themselves. This is a loss even from the present point of view.

2. A further aid is rendered to memory by judicious **selection.** Of many facts equally important from different points of view, some only will be valuable for the purpose we have in hand. We must learn, therefore, if we would place memory under the best possible working conditions, to select the ideas which we need to make most use of *at the present time*, and allow the rest to sink into a secondary place until their turn comes.

We shall frequently be guided in our selection by the suggestiveness of the particular facts, by their serving as keys to other ideas we wish to fix, and by the possibility of readily connecting them so as to form a continuous chain. Skilful selection is one of the secrets of 'getting up' information. In teaching we must take care also that the facts chosen are suitable, both in matter and words, to the age and understanding of our pupils. A child who is battling with a number of difficulties at the same time is scarcely likely to conquer any one thoroughly, and all energy needlessly drawn off in other directions is so much loss to memory. Many otherwise good lessons are spoiled by want of discrimination in matters of selection, and much of the superficiality we so often hear complained of is in part to be charged to the same defect.

3. Help of another kind is afforded by **classification and arrangement**; by grouping facts in the most suitable way; and by attending carefully to the form of presentation, or the neatest mode by which they can be expressed.

We must assist children to recognise the common element

which justifies the combining of a group of ideas; teach them how to classify for themselves, and how to remodel and rearrange information, so as to render the acquisition of it easy and most useful. The value of method in work is not likely to be over-estimated. Even in the lowest class of exercises—where we have simply to memorise facts—to put the ideas in the best form, or to notice any common peculiarity is often of great assistance. Thus, the value of the sines and cosines of the angles 0°, 30°, 45°, 60°, and 90° may be remembered with the greatest ease by arranging them in order under a common root sign. It is a help to notice that the deaths of the first three Edwards all end in 7, and that the value of π, $\frac{355}{113}$, consists of the first three odd numbers taken twice. The verse form is a well-known help, and alliteration acts in a similar way. Every one must at some time have been thankful for—'Thirty days hath September,' &c., and most of those who have learned a foreign language must have felt how much time was saved by versifying exceptions to grammatical rules. As long as these artificial aids are kept to the proper kind of facts, it is a mistake to throw away their assistance.

4. Great importance should be attached to **principles and laws**, especially in teaching science. These should be illustrated from many sides till thoroughly understood, and then rendered permanent by applying them in numerous instances to explain any facts which they cover.

It should, however, be remembered, in this connection, that the power of reasoning necessary for the clear grasp of a principle, or a scientific law, is not sufficiently developed in childhood to make the mastery of it so complete as to be of much use. We must train the reason, but we must not strain it, and hence, in the case of young pupils, we must give a large number of illustrations and examples, and be

content at first with a feeble grasp of the principle. It is quite possible to overdo the giving of reasons; to steer clear of either extreme is the proper course. When reasoning can be easily comprehended it is a great mistake to load the mind with a number of separate explanations of phenomena, which a few laws well mastered would completely account for.

Careful attention to the laws underlying the formation of mathematical formulæ will often render the remembrance of the forms quite easy, where otherwise they would be decidedly burdensome. A theory, again, even when not necessarily true, is often of great service in giving order and coherence to individual truths, which, without such working hypothesis, would be a confused mass of details. Whatever, for instance, may be thought of the evolution theory, it is certainly of the greatest value in giving logical consistency to a large group of facts. Frequently a faulty theory has been the means by which a more exact one has been rendered feasible. It is quite possible to keep the distinction between theories and demonstrated facts perfectly clear, and yet derive from the former a very large measure of help in grasping and retaining the latter.

5. Another point is to attend carefully to the **logical sequence** of ideas, to trace cause into effect, to so place one fact that it may in part suggest the next, to make good the connection between the various parts of our teaching at all points where it is practically possible.

Instruction is not only of far more value, but is much more readily remembered, when given on some definite and well-considered scheme, than when given in a desultory fragmentary way. Simple trains of reasoning, too, may frequently be introduced into our teaching in such a manner as not only to train that faculty, but also give coherence

to the facts. This, it will be found later on, is a very valuable aid to memory.

6. It must be borne in mind also that a sufficient amount of time should always be given to obtain clearness and exactness of idea. The *festina lente* (hasten slowly) principle is of great value here, as elsewhere, in education. Vague and incomplete impressions are never well remembered.

'The common observation,' says Maria Edgeworth, 'that we can attend to but one thing at a time, should never be forgotten by those who expect to succeed in the art of teaching.' Children must not be hurried; one point must be allowed time to 'soak in' before the next is given. *Many a teacher ruins the effect of his work not only by talking too fast, but by saying too much.* The children do not seem to realise what he has just said, and instead of giving them time to collect themselves, he starts off instantly to put the fact in some new way. This makes 'confusion worse confounded,' when, probably, all that was wanted was a little patience. The speed of teaching will depend largely upon the difficulty and importance of the facts to be apprehended. Easy ideas, well within the experience of children, may be taught rapidly, others more slowly, some very slowly.

7. Lastly, if we wish the apprehensive power to act in the most perfect manner we must cultivate habits of **observation, inquiry, comparison,** and **steady perseverance**; we must exercise the faculties, not independently, but in relation.

The faulty testimony we frequently hear given results often more from defective observation than from any fault in the retentive power. Exactness, whether it be of words or ideas, is of great importance. If we do not take the trouble to observe closely, or carelessly colour or exaggerate facts in giving an account of them to others, we

frequently end by deluding ourselves. 'It is well to remember,' remarks Noah Porter, 'that while the liar has more pressing need of a good memory than any other man, he is of all men least likely to possess it.'

We should accustom children to look carefully, to listen attentively, and to describe accurately. It will be frequently necessary to direct them in looking at an object, and we can test by questions how far they have seen all that we intended. Similarly, we can require them to reproduce what they have been listening to, laying stress on the words to be repeated or the ideas to be re-expressed, according to our intention. The use of comparison in teaching has also a very wide application. Every one who is fairly acquainted with even a couple of languages, at all similar, knows what a help to memory is afforded by the comparative method of study; and it is also of special service in such subjects as geography, grammar, history, object lessons, and natural science.

B. *Retention.*

The retaining or recording power is that by means of which, when an idea has been apprehended, we hold it just ready for use at a future time, though during the interval it is lost to the consciousness. The mind, as it were, continues the idea in a latent state, and in such a manner that it may be brought to light again when wanted. As time goes on, the idea sinks, so to speak, deeper and deeper beneath the surface, needing more and more effort to bring it up, until at last an ordinary stimulus is insufficient for the purpose. The rapidity with which this sinking process goes on depends upon personal power of retention and the age

of the individual, upon the degree in which the mind was affected by the idea at first, and upon the rate of disappearance of other ideas associated or linked with it in the process of apprehension.

Some persons retain facts in a useful state much more easily than others; a powerful or repeated stimulus fixes ideas much more strongly than a single or weak impression; and the more firmly the ideas are connected, the less likely will be the disappearance of any individual of the group. What has once been distinctly and well learned is sure to leave some lasting effect; even when the information seems to have disappeared, it can be relearned with comparatively little trouble. With respect to the variation of memory with age, most authorities are agreed that the power to simply carry results unaided acts most strongly in childhood—probably from six to twelve or fifteen—practically while the brain, after attaining sufficient strength to bear a fair amount of strain, is completing its growth. This, too, is the age when good intellectual habits of all kinds are formed with greatest facility and success. We shall not be far wrong if we fix the maximum of the holding power of the memory at about the age of ten, and consider that after this it steadily but surely declines. This may in a measure be due to the great crush of ideas as they accumulate more and more; the mind has to spread its action over so wide a range that it cannot give the same amount of energy to any one acquisition. Anything then which is within the comprehension of children, which we shall not be able to fix in a more useful way, and which we require to be well remembered, is best learned by a direct act of memory in childhood.

Arithmetical tables, definitions, the drill work of language, moral precepts, rules of all kinds, and beautiful passages of poetry or prose are among the things which may be usefully treated in this manner. A child, too, will grind away at such a mass of facts as the multiplication table, or a conjugation, with much less irksomeness than an adult who has lost his interest in mere exercise, and who naturally seeks aids to his work, but which are here difficult to find.

With respect to storing the mind with passages of poetry or prose, only pieces of approved excellence should be committed to memory, and this within reasonable limits. The setting of any doggerel to be learned, so long as it is difficult, for the supposed purpose of training the memory, is a delusion no teacher should fall into.

The use we make of memory must be intelligent, as far as age and power will allow. There is no justification for such a practice as learning a series of Latin rules in Latin before a word of the language is understood, or of setting to be learned by heart a special form of words, when it is the ideas only we wish remembered. We should bear in mind Dr. Carpenter's remark, that 'a merely verbal memory can scarcely be said to give us knowledge; it merely supplies us with symbols by which knowledge can be acquired.'

We find in the physical universe that force is never really destroyed, what we usually refer to as destruction being simply transformation. This is spoken of as the Conservation of Force. In a similar way in all probability no *mental* force can be annihilated. It is extremely doubtful whether the impression left upon the mind by a properly registered idea is ever quite lost. It is a startling reflection, that every immoral act or thought leaves a permanent record behind it, and that remembrance of it may revive to haunt us at some future time.

An idea may rapidly vanish so far from the consciousness as to become, to all intents and purposes, irrecoverable, but even then some unusual stimulus may bring it again vividly before us. Thus languages entirely forgotten for years have been completely recovered during the influence of disease or injury to the brain, and have vanished again when health was renewed. So also, it frequently happens that events of earliest childhood, which no power of will could ever have recalled, occur to the mind just previous to death. Even during health a sight or sound may so stir the mind that things may be remembered of which we had previously lost all recollection.[1] 'Every experience we have had,' says Ribot, 'lies dormant within us: the human soul is like a deep and sombre lake, of which light reveals only the surface; beneath there lives a whole world of animals and plants, which a storm or an earthquake may suddenly bring to light before the astonished consciousness.' This, however, is very different from the ordinary use of memory, so that we properly speak of the retentive power as being, for all practical purposes, a distinctly limited quantity. Most of us have probably forgotten far more than we know, and if we have a memory which fastens upon facts very readily we should be specially on our guard, for a quick memory is often far from a retentive one. As a rule, 'lightly come, lightly go.'

Putting individual endowment out of the question, and leaving association of impressions till we come to speak of reproduction, the power of retention is for the most part dependent upon the *depth of impression made upon the mind.* The conditions, then, which lead to this most desirable result, should be well

[1] See some remarkable cases given by Dr. Carpenter.

known to the educator. The most important of them are as follows:—

1. **Original force of the idea.**—The more direct and powerful the stimulus is which affects the mind, the more lasting will be the result. When the stimulus is a *fact presented to the senses*, we should endeavour to secure that the particular sense implicated acts in as perfect a manner as may be. The actual phenomenon always leaves a much stronger impression than a mere description of it.

Thus in 'object lessons,' the object itself should not only be shown where practicable, but each point mentioned should be observed; and in teaching such a subject as science we should never rest content with mere words, whether of lectures or text-book, but give the knowledge as far as we can at first hand, that is, through the senses. Words are necessary and useful in the presentation of *thoughts*, but it is a mistake to employ them in place of things, when it is a knowledge of these we wish to convey, and when any sense-presentation is practically possible. A knowledge of objects and phenomena is a very different thing to a knowledge of what has been said of them.

The acquirement of objective knowledge, properly made through the senses, will be distinct, real, and enduring. When impressions can be conveniently made through two sense organs, as the eye and the ear, both should be used. Thus, it is a help to say aloud what we have to learn by heart, as well as to follow the words with the eye; and a written summary on the blackboard is far better than having the points repeated by simultaneous utterance alone. We should be careful, too, that the mind deals with exactly that part of, it may be, a complex impression which we wish to fix; that is, we should try to prevent diffusion over too wide

an area, and confusion with points which do not at the time concern us. Thus, in showing an object or performing an experiment, we should guide children's observation into one channel, by telling them exactly what it is to which we wish them to direct their attention.

When the stimulus is a *fact presented in words*, it should be brought before the mind in a distinct and forcible manner. Hence, in communicating ideas in this way, the teacher should make use of any means at his disposal to secure vividness, in proportion to the value of the idea he wishes to fix. He should use simple and exact words; he should speak forcibly, not loudly but impressively, and not too rapidly. He should present the idea in as fresh and novel a form as is compatible with other conditions, and he may frequently make use of the 'picturing out' method with advantage. The element of surprise is also useful in giving permanence to an idea.

In some cases a sense illustration of a similar idea may be given, as when we show melted resin will stick to a rod to make clear the condition of melted glass; or the teacher may make use of pictorial representations, or diagrams, or maps, as the case may be. And, lastly, when other things fail, he will often find an oral illustration will afford considerable help. The consideration of these points will also lead us naturally to work with ideas of concrete things as an introduction to abstract notions, to give examples before principles, facts before laws, and so on.

2. Attention.—That to which the attention is most strongly directed in the process of apprehension will, other things being equal, abide with greatest accuracy and certainty in the mind. Without attention memory is almost useless, and thus it is of the greatest importance, if we wish to secure the maximum of

retention, to see that the conditions in teaching are such as not only allow but promote concentration.

We should endeavour to guard against all distractions, both internal and external, mental and physical. A certain amount of comfort and freshness of body is essential to concentration. If children are placed in a glare of light, made to sit in a cramped position, kept too long in any one posture, not properly warmed, or allowed to work in a close stuffy atmosphere, the attention suffers, and the retentive power along with it. We must so affect the pupil that he will as it were be on the alert, and voluntarily come out to meet and welcome the ideas presented to him; not simply remain passive, while we spread out our treasures before his mental gaze. But at the same time, this display must be made steadily, one thing at once. If we flit rapidly from one point to another we shall only produce silent bewilderment, not attention. A great aid to an actively recipient state of mind is sympathy between teacher and taught. Many a teacher, of only average ability in presenting facts makes up, by his power of attracting sympathy, for the lack of brilliancy in his exposition. The cultivation of the attention into an intellectual habit is one of the best ways of training the memory.

3. Interest.—Though this acts mainly through attention, the separate consideration of a few points concerning it will not be out of place here. We gradually develop the power of remembering those things most easily which are to us of the greatest interest and importance. Thus, the particular bent of the mind, our tastes, studies, and occupations, all influence the growth of memory in no small degree;

and in the end render its action much more powerful in some directions than in others.

Thus the artist remembers scenes or faces, the musician tunes and harmonies, the lawyer cases, the linguist and philologist languages, the librarian books, and so on; while the memory for other things may be of quite common or even defective quality. 'The mathematician,' says Tate, 'readily remembers his theorems and formulas, while he forgets even the name of the existing prime minister.' As the ordinary business of the teacher is general culture, and not special training, and as he is usually concerned with the development of young minds, it is his duty to secure the all round exercise of memory. This gives the same groundwork for *special* memory that a solid general education affords for special studies. We have to remember many things very uninteresting in themselves, and it would be a great mistake to allow the mind, at first, to spend its strength almost exclusively on the one class of ideas which are attractive to it. Rather, we should direct the exercise of memory more particularly into other channels, patiently controlling its action, and endeavouring, by the attractiveness of our manner and method, to make up, as far as we can, for the want of interest in the facts themselves.

Much may be done in this way. We all know the difference between good story-telling and bad. Vivacity in the teacher, an inviting form of work, well used illustrations, and skilful questioning, are all sources of interest; and serve as auxiliaries to retention. Children are always delighted with pictures, whether printed or rapid sketches on the black-board, or even vivid delineation in words. The work will be rendered easier, also, by fostering the

natural curiosity of children in many different directions. 'Curiosity,' says Archbishop Whately, 'is as much the parent of attention as attention is of memory; therefore the first business of the teacher—first, not only in point of time, but of importance—should be to excite, not merely a general curiosity on the subject of study, but a particular curiosity on particular points in that subject. To teach one who has no curiosity to learn, is to sow a field without ploughing it.'[1] Consciousness of progress, again, gives interest in the work; children like to feel they are making headway, and work with increased zeal when this is the case.

4. Repetition.—It has been stated that every impression made upon the mind leaves a trace or residuum behind it, and that this it is which renders the revival of the idea possible. We should naturally expect then, that each succeeding repetition would deepen the effect, until it would at last become sufficiently great to render the idea indelible. This is the case. We are thus led to make up by iteration for want of strength in the impression, and we see also, that the need of repetition is in inverse proportion to the force with which the particular idea acts upon the mind. 'Repetition is the father and mother of memory,' writes Comenius; one of Jacotot's favourite maxims was, 'Repeat without ceasing'; and almost every writer on memory has dwelt upon the advantages of this method of fixing ideas. The want, however, of any discrimination in its use has frequently led to its wrong employment.

When the special *form of the idea* we wish to fix is important, it is necessary to repeat it in the same words; and that which often makes this a long and laborious process is, in the main, want of attention. The words are said over and over again in a purely mechanical way, while the mind, it

[1] See *Annotations on Bacon's Essays.*

may be, is thinking of quite other things. If we fix the attention on what we are doing, we shall find the process much shortened; and where repetition does not produce the required effect, we may be pretty sure there is something wrong. Where the *idea alone* is the important thing, it is better to vary the form of the repetition, so as to give interest to the work and fulness to the idea itself. This mode of repetition is of frequent service in teaching, but to make it yield the maximum of usefulness, the teacher must be on the watch against wearying his pupils, and against waste of energy. 'When a thing is clear, let him never try to make it clearer; when a thing is understood, not a word more of exemplification should be added. To mark precisely the moment when the pupil understands what is said, the moment when he is master of the necessary ideas, and, consequently, the moment when repetition should cease, is perhaps the most difficult thing in the art of teaching. The countenance, the eye, the voice, and manner of the pupil mark this instant to an observing preceptor.'[1]

To employ mere reiteration of words, where a more intelligent method of repetition is available, is one of the commonest defects of teaching; it not only leads to a want of grasp and understanding, but tends to make the pupil over-estimate the extent of his acquirements. Questioning forms a valuable means of securing the repetition of facts in actual teaching; it takes off the sameness of the work, and distributes it between teacher and pupil. Writing, again—whether in making analyses, digests, well-arranged and suggestive notes of reading or observation, or even in some cases when it is nothing more than simple transcription—may similarly be made of considerable service. It necessitates the retention of the idea so long before the consciousness, that the

[1] Edgeworth's *Practical Education.*

mind has plenty of time to get firm hold of it and blend the image formed with that of any previous impression of the same thing. The extension of repetition into review will be noticed under Reproduction.

5. Force of attendant emotion.—We remember with ease and certainty anything of a very pleasurable or very painful character, the sharpness and suddenness of which adds much to the effect. We do not need to burn our fingers twice to make us remember the action of fire, and it is on this principle that boys were once flogged at parish boundaries. As elsewhere noted, the employment of emotion, however, needs the greatest care and judgment; and we shall do well to bear in mind in this connection that all violence of emotion is liable to lead to harmful effects in other directions. The association of a moderate emotional stimulus of a proper kind with an idea certainly aids its retention. A cheerful, encouraging, earnest teacher soon arouses a pleasurable enthusiasm in the minds of his pupils, which promotes exertion and is a great help to memory. But besides the emotion induced by the teacher there is a pleasure arising from the work itself. Children are naturally full of vivacity, and like to be actively employed. When properly managed they warm to their work, the mind gets a glow of excitement, every difficulty conquered gives an impetus to the attack of the next, all their energies are centred in what they are about, and they come to the end of the lesson with regret. Who does not remember such lessons in his experiences as a child, and recognise how firmly many of the ideas still remain fixed in his mind? Any method, then, which prevents children from taking an active share in the work is so

far faulty; it deliberately casts aside a powerful auxiliary. This is another reason why continuous lecturing to children is bad.

With respect to painful emotion, we shall not be far wrong if we consider that it can never be usefully employed by the educator as an aid to memory. Punishment, even for neglect in mastering a required task, needs the most judicious management; or we may so disgust a child with learning as to seriously injure his future prospects, and in such a case we are discounting futurity with a vengeance. Threatening, sarcasm, and violent language are all wrong when applied to children. To terrify or frighten a child is not only cruel, it is harmful and useless in teaching. It puts him into such a nervous, tremulous state, that concentration is almost impossible, and memory suffers in proportion. A morose, irritable, or passionate teacher may do an immense amount of mischief. A touching anecdote may occasionally be useful, the pain here being more than counterbalanced by the pleasure of having the feelings gently stirred, but even this device needs using with discretion.

6. State of the health.—It is a well-known fact that nervous depression exerts a marked deteriorating influence upon the power of memory, while buoyancy of spirits acts in the opposite direction. Two out of the three conditions of good memory given by Coleridge,[1] are a healthy digestion and a quiet conscience; the third being sound logic. Acquisitions made when the body is weakened by disease, or by continued overwork, rarely last long in the mind. Fatigue acts in the same way.

A case quoted by Dr. Carpenter well illustrates the latter. Sir Henry Holland, having descended two very deep mines in the Hartz Mountains, on the same day, and remained several hours in each, found himself at length so

[1] See *Biographia Literaria.*

exhausted, that he forgot every word of his German, and could no longer carry on any conversation with his conductor. Rest and refreshment, however, brought it all back to him. Many persons have probably felt, after carefully examining the pictures in a large gallery for several hours, how difficult it sometimes is to recall the name even of a well-known painter.

A tired child cannot be expected to give useful attention, and therefore will remember badly or not at all; and the teacher who would succeed in his work, must be ever on the watch for any symptoms of weariness which may show themselves. The importance of thorough ventilation of the room can scarcely be urged too strongly in this connection. Rest in many cases does not necessitate quiet, or even complete change of work; it is often sufficient to secure freshness and variety in the treatment of the subject; sameness and dulness are great inducers of fatigue. The process of storing ideas in the memory probably uses up more brain energy than any other phase of the mind's action, and should have the best part of the day assigned to it; yet how frequently do we find this violated in the arrangement of school work. Everything then which tends to strengthen or husband the nervous force is so far an aid to retention. 'Memory at large,' says a writer in 'Chambers' Encyclopædia,' 'can be improved only by increasing the vigour and freshness of the nervous system, and by avoiding all occasions of exhaustion, undue excitement, and other causes of nervous waste.' Lassitude and low spirits frequently result from want of exercise; to work without giving proper recreation both to body and mind is false economy, and of all men the teacher should be one of the first to recognise this.

c. *Reproduction.*

By the reproductive power of memory is meant the faculty of finding and bringing to light impressions previously fixed in the mind; the power of recovering latent ideas just as they are wanted; of fetching up from the mental stores any fact which we have previously taken in, and which we need for present use. Reproduction may be called the showman of memory. The ideas which are held by the memory exist as it were in unstable equilibrium; a very slight circumstance may give the impetus which topples this or that idea into the consciousness. What we need is to know the conditions which thus affect the reproductive power, and to get them well under the control of the will. If we knowingly or unknowingly surrender this control, and allow the ideas to tumble into the mind just as they may chance, we sink into a state of reverie, or a condition closely analogous to it. In such a case ideas flit through the mind but leave scarcely any impression. Many children are prone to this day-dreaming, and it is the teacher's business to prevent it by supplying the proper stimulus, and by suggesting the direction in which the reproductive power is required to act.

Inasmuch as reproduction depends upon apprehension and retention, all the points previously dealt with affect the recollection of ideas in a greater or less degree. Two points, however, specially call for consideration here, as they are more directly perhaps concerned with the reproductive power than the others, and form the principal conditions of its most satisfactory action. These are (1) the association of

ideas; and (2) practice in reproduction, more particularly in connection with the review of previous acquisitions. The strength of the connection between the will and the intellect, that is, the force of control which the former exercises over the latter, is also an important determining factor of the reproductive power, but this will be incidentally referred to in dealing with other points.

I. ASSOCIATION.—No act of mind is, properly speaking, isolated; each idea, as it comes before us, reaches one hand back into the past and the other forward into the future. If it succeeds in uniting itself with a companion so firmly that the connection is recognised by the mind, the two ideas will henceforth have a tendency to cohere, and when the union has been cemented one will lead naturally to the reproduction of the other. We may have a long series of ideas thus conjoined. This tendency of ideas and sensations to link themselves together, so that they summon up one another, is usually spoken of as *association*, though Dr. Brown and some others prefer the term *simple suggestion*.

When an idea, then, is properly apprehended, it associates itself with its similars, its neighbours, its contrasts, or its dependents, as the case may be, until it becomes fixed in the mind as one of a group; the reproduction of any individual of which leads to the other ideas of the series being evoked in succession. 'The fundamental law of association,' says Ribot, 'consists in this, that when two things have been frequently found together, one recalls the other.' If the mental connection between the two ideas is complete, the reproduction of the second is *spontaneous*; if incomplete, but the mind can with some little

trouble discover the connection and so bridge over the gap, the falling of the second idea into consciousness is volitionally induced. Thus the reproductive power of memory depends largely on the strength of the relations on either or both sides of an idea.

When we try to recollect something we put in motion the associative machinery; we run over in our minds a number of ideas in succession, in the hope that one or another is connected with the idea we want, and will suggest it. It sometimes happens that we do not find what we want, as a name or a date, and we pass on to other things; but the mind seems in many such cases to go on working without our being conscious of its action, and when it has laid hold of the desiderated idea it thrusts it forward in the midst of other matters. The fact seems to jump into the consciousness out of all connection with what we are thinking of at the time.

It is often very curious to trace back our thoughts and see how one idea has led to another. In some cases we shall find that the intermediate steps have been dropped out as soon as used, and only the first and the last members of the series are remembered. Hobbes gives a striking case, where, in the midst of a conversation on the civil war, a person abruptly asked what was the value of a Roman denarius. The succession, when made out, seemed to be this: the war had suggested the king, this had led to the treachery of those who had surrendered him, this to Judas Iscariot, this to the sum of money he received as reward, and this to the denarius.

Association is not confined to ideas. We may have movements linked with movements, so that one brings on the next as in pianoforte playing; or ideas with movements, as when the idea of yawning initiates

the act; or ideas with sensations, as when a Roman turned the stone of his ring towards the palm of his hand as a reminder, or when the vivid reproduction of a past impression induces a feeling of sickness or faintness. Ideas again may be associated with emotions, as when the thought of some loved one passed away renews our grief, or the remembrance of past scenes brings with it a revival, in part at least, of the pleasure we experienced at the time.

The usefulness of our acquisitions does not depend so much upon the number of them, as upon the thoroughness of their association, so that one may naturally suggest all correlated facts the mind is acquainted with, and so give us the power of using all we know in connection with a special point. A small number of ideas properly stowed away is often of far more use to the possessor than large stores of information accumulated by mere aggregation without order or arrangement. It is astonishing how much men vary in the power of using what they possess. The faculty of readily turning to account what has been acquired—the power of making the information perform the largest amount of service in any required connection—is one which the teacher should aim at cultivating in his pupils wherever opportunity offers; and an important aid to doing this is to train them to note carefully the relationship of things. He must bear in mind, however, that the same associations do not strike everybody; to one an illustration is useless which to another makes all clear, one sees a connection instantly which another fails to appreciate even when pointed out; so that he must be prepared to supply a second or a third link if the first fails to perform the office intended. A person with many

ideas stored in his mind naturally forms associations with much greater ease, other things being equal, than one who has few. No two individuals will have at command the same facts, or view things in the same way, and hence the same thought may give rise in different people to entirely different trains of ideas. The amount of information possessed by a child is very limited, and his power of readily forming associations will be limited in like proportion. The teacher should render, therefore, all the assistance he can, and bear in mind that every acquisition is not only valuable in itself, but also because it affords a point of attachment for future facts.

Where association is properly employed it saves the mind the strain of making a large number of independent efforts. The importance of putting away facts in an orderly and connected fashion should never be lost sight of, especially by those who have care of the young; but it is to be feared that the frequent talking about chains of ideas sometimes leads us to forget that which lies beneath the words, and that our practice would in many cases seem to imply that all we mean by a chain is a number of links placed side by side. The connection is the vital point.

The principle of association has in recent times been employed to account for so extensive a series of mental operations, and is found to be so far-reaching in its consequences, that it has been made the foundation upon which modern psychology is based. Writers of the present day are pretty well agreed to bring all kinds of association under the dominion of two great principles, which are thus given by Professor Bain.

A. The Law of Contiguity.—'Actions, sensations, states of feeling, and ideas occurring together, or in close connection, tend to grow together or cohere in such a way that when any one of them is afterwards presented to the mind the others are apt to rise.'

B. Law of Similarity.—'Present actions, sensations, thoughts, and emotions tend to revive their *like* among previous impressions.'

No doubt all association phenomena may be ultimately reduced to these two forms; but it will be much more useful as a practical help to the teacher to keep in mind the following varieties, or branch statements, of these fundamental principles. Facts suggest one another by the action of association when they are united in the mind by—

1. Immediate succession in time.
2. Immediate succession in space.
3. Cause and effect.
4. Contrast.
5. Direct similarity.
6. Natural affinity.
7. Logical affinity.

The first four belong to the principle of Contiguity, the remaining ones to the broad law of Similarity. We shall briefly consider each of these in succession.

1. Immediate succession or juxtaposition in time.—The mere fact that one idea has immediately succeeded another naturally leads the mind to contemplate the two in connection. The things may have no real relationship, and yet may be closely associated together in this way. The fact of their having occurred to us one directly after the other may have been the result of intention, or the effect of accident; but, in

any case, the tendency is for them to conjoin, and so suggest one another.

Thus a snatch of melody may recall to our minds the storm of applause which followed the singing of it the last time we heard it given, or the recollection of a sentence in a speech may perhaps suggest to us the peculiar argument which followed; or again, the remembrance of a particular scene may recall the accident which happened directly after we had enjoyed the view. In learning the multiplication table the items are usually gone over and over again, in an invariable order, and we see how helpful this is, when a young child, who is unable to give when challenged a particular product, recollects it quite accurately when allowed to start from the beginning, and say up to that point. Many persons who possess astonishing power of memorising words fail to recover any individual word or sentence, unless they start from the commencement of a series. We all have frequently to 'try back' in this way, in order to get the impetus which carries us over the difficulty.

Order in time may frequently have acted in connection with order in space. Thus, we have not only said the alphabet a great many times in a certain succession, but have seen the letters actually arranged side by side in this way, the frequency of both, acting conjointly, producing a certainty of reproduction which has become mechanical. So, in learning a piece of poetry or prose, we are aided, not only by the words and ideas having frequently followed in the same succession of time, but by our having contemplated them in the same order of space.

The principle of succession acts strongly, and is a great assistance in childhood. 'The order of time, says Maria Edgeworth, 'is the first and easiest

principle of association to help the memory.' In many cases it does not do to stop when reproduction by this means is secured, still it is a distinct aid as far as it goes. Where there is a clear relation between the facts, we need to pass on to some higher form of association. Stopping short of this often leads to the giving of mere instruction, without the training which should accompany it. It behoves the teacher then to look well to the order of his lessons, and as facts are likely to be remembered as they are arranged in presentation, to see that as far as practicable one fact leads naturally to the next; and that those points of a series are oftenest made to follow each other, which we wish to be remembered in connection.

2. Immediate succession, or coadjacency, in space.—Ideas of things which have been brought before the mind side by side have a tendency to rise together when acted upon by memory; the mere proximity of one object to another, at the time of apprehension, forming a link of suggestion between them.

Thus the sight of a fossil in a drawer may call up a vivid recollection of the locality where it was found, or of the person who was with us at the time, or of the feeling of pleasure which accompanied the discovery. The remembrance of the position on the page of a book where a passage occurs will often recall the passage itself; or a sentence from a drama may bring to mind the peculiarities of the actor we last heard declaim the passage.

We may associate in this way a great variety of ideas of persons, places, events, emotions, and so on. Sometimes the mind fastens upon a number of circumstances surrounding, or attendant upon, a certain object or event; and when the central idea occurs to the memory, the accompanying

details come back in all their completeness. Perhaps the most remarkable illustration of this ever penned, is Dame Quickly's speech to Falstaff, in Henry IV., Part ii., Act ii., Scene i., beginning, 'Marry, if thou wert an honest man, &c.'

In many cases the part will suggest the whole, and where some easy artificial means of remembering the part exists, the whole may readily be recovered. It is this which enables us to aid the memory by means of initial letters. Thus the seven colours of the prismatic spectrum may be remembered in order with the greatest ease, by connecting the initial letters of the colours to form the combination ROYGBIV. Alphabetic arrangement has been mentioned, and so any unchanging sequence may be made useful, whether in time or place. The association of the principal points in a subject with numbers is often of assistance to the lecturer or the student. One of the oldest devices of artificial memory is to associate a series of facts or heads with a series of well-known rooms, so that the two may fix themselves in the mind together, and one suggest the other. Abercrombie mentions this as having given rise to our common mode of speaking of the various parts of a discourse as in the first place, in the second place, and so on. So long as we do not neglect real and important relations of things for these artificial or accidental ones, there can be no harm in their employment, where facts have to be memorised.

A large number of so-called *mnemonic systems* depend upon associations of contiguity. To be of any use such schemes must provide a means of association where none naturally exists, or substitute an easier form for one more difficult. In the latter case they very frequently do this at the cost of intelligence, substituting mere artificial associations for the natural

relationships of things, which need to be mastered before the things can be properly said to be known. In some cases these mnemonic devices are so elaborate that it would cost little extra trouble to learn the things required in a much better way; and in others, are so nonsensical that they draw off the attention from the matters to be remembered to the fun or foolishness of the machinery. The modern spirit of burlesque grows quite rapidly enough without aiding its formation in children by travestying knowledge, and destroying its dignity and sobriety. Where no helpful natural association can be formed, as in the case of such things as dates, an artificial aid of the mnemonic kind, if simple in application, free from absurdity, and leading to ready remembrance, may often be useful; but the teacher need concern himself very little about such matters.

The power of suggestion, arising from previous associations of place, lies at the root of that *faculty of localisation* which is frequently of such great assistance to us. As our acquisitions extend, and the number of them we need to hold at command for special purposes grows very large, it is almost an impossibility to retain them all in the memory, and the habit of fixing in the mind the places of knowledge, so that we can at once lay hands on any needed information, becomes invaluable.

When we have well secured a select and extensive stock in trade, any special article of occasional use is best procured as wanted. To keep everything by us would prove a burden, not a help. The thing aimed at by the student after he has amassed his working stores is to have the power of using a very wide range of knowledge, and yet to keep his mind as free as possible for action. Now that books are

cheap, and libraries numerous, it is a mistake to load the memory with a great number of things which we require only now and again. We need rather to be well acquainted with the places and contents of stores; and this the index form of memory supplies. The power of fixing the localities of information grows rapidly, and its value should always be kept in mind by the teacher. Wherever he finds he can aid the formation of a habit of associating a thing with its place, or of noting the position of anything learned from a book, so that it may be found at once when wanted, he should do his best, while securing the learning of necessary information, to foster the strength of this habit and extend its operation.

3. Cause and effect—means and end.—Worn rocks on the coast suggest the corroding action of the waves; the strewn wreck on the shore leads the mind to the late tempest; the pain in an injured joint carries us back to the accident which caused it; the presence of 'fire damp' in a mine at once directs the miner to the chance of an explosion, and prompts him to make the best of his means for preventing it; or the speed of a railway train may lead us to think of the power of the engine, or the terrible accident which would follow any sudden check. The natural relationship which links ideas in this way renders them eminently suggestive of one another; and where the connection exists, to fix it clearly in the mind is one of the most powerful and useful means of association at our disposal. It is especially valuable in lessons from the physical or natural sciences; and should be much more generally employed in the teaching of such subjects as history, than it appears to be.

We should train children by easy stages to recognise a cause, and to trace its action in producing the

effect; or, having given an effect, to seek in a backward direction for its cause. Children are naturally of an enquiring turn of mind, and by fostering this tendency, encouraging them to ask questions, and patiently answering them as far as we can, or as far as is suitable to their age, we are not only interesting them in knowledge, but laying the foundation of a valuable intellectual habit. Much of the teaching of little ones is necessarily dogmatic, but not to so great an extent as our practice would frequently indicate. It is a mistake to dogmatise when the young mind can readily grasp with a little trouble on our part the explanation which will make the work real. We may also in many cases perform a useful service, by not contenting ourselves with simply telling children they are wrong, but patiently leading them to see the cause of their error. Of course here, as in every part of his work, the teacher will need to use his common sense.

4. **Contrast.**—We speak of two objects as contrasting with one another when the first is in certain particulars strongly unlike the second, when the number and strength of their differences greatly exceed their points of resemblance. Now it is found that when two things affect the mind first and most forcibly through their dissimilarities, the idea of one has a strong tendency to bring up that of the other. In order that the mind may be led to contemplate two things in connection, so as to note their contrast, and so form the link of association we are considering, they must also have some points of similarity. Things which we cannot compare cannot properly be contrasted.

Thus a very tall man may suggest a very short

one we have seen in his company; the difficulty with which platinum fuses may recall the ease with which we can melt lead; walking in a cold biting wind or a snowstorm makes us enjoy by anticipation the rest by the cosy fireside; the consideration of mountain ranges may lead us on naturally to think of the depth of the sea; or the training we receive from language may direct our thoughts to the very dissimilar culture we obtain from experimental science; but we do not contrast a landscape with a sound, or light with a metal, because here the things are different, in *all* respects. Properly speaking, it will be found that we contrast qualities, not objects.

We have spoken of association by contrast as though it were a law of extremes; as a matter of fact, however, all carefully noted differences in comparable things tend to associate themselves in this way; only that the power of the one object to revive the other, by the association here spoken of, will vary in proportion to the strength of their differences; and so weak contrasts are of little help to the reproductive power. Lessons of contrast, whether between objects, persons, or events, &c., are of much value. They not only give the contrasted facts a better chance of being remembered, but they bring out each point into clear light, and give a distinct training in that discrimination of differences, which is so conducive to accuracy, and which forms the foundation of so large a proportion of our knowledge.

5. Direct similarity or analogy.—Ideas between which there exists a strong resemblance or analogy naturally focus themselves to the same point in the mind; and this natural tendency for like to seek out and resuscitate like is a great aid to reproduction. 'It is

a fact of our constitution,' says the writer in 'Chambers' Encyclopædia,' previously quoted, 'that in cases where something now before the mind has a strong cast of resemblance to something formerly observed or conceived by us, but not at the present thought of in any way, the present is apt to recall that past idea, whatever it may be.' The face of a man in the street may revive that of an absent friend whom he resembles; or in climbing a mountain a certain state of the atmosphere may at once remind us that on a previous occasion exactly the same condition existed when the surroundings were quite different. It is the reproduction of a past idea which we recognise as exactly resembling the present impression which leads to identification. It is the suggestive power of similarity also which gives the comparative method its great value in teaching, and which makes classification so exceedingly useful. Through this principle too we are enabled to arrive inductively at the law which underlies a large group of phenomena; and it is by the recognition of the common element in a series of propositions that deductive reasoning is rendered possible. We must therefore in our teaching *bring out into clear light* the points of resemblance in things we are examining, as well as their points of contrast; and so present our facts that the likeness of some simpler or better known idea to the one we wish to fix flashes readily across the mind. When this takes place, the recognition of the common element which links old and new, easier and more difficult, at once becomes an aid not only to understanding, but to future remembrance. Children seem to take much pleasure in analogies when pointed out, as well as in discovering them for themselves; the latter of course is to be preferred when it can be

managed without waste of time. Many objects are best treated in pairs, two being placed side by side; and all points of comparison and contrast, which the children can recognise, elicited from them by questions. This is an aid not only to memory, but to that habit of searching into things which we can scarcely carry too far. Teaching by comparison, however, needs care, for unless the things compared are kept quite distinct, at the same time that they are examined side by side, it may, and often does in the hands of an unskilful teacher, lead to much confusion.

Association by similarity is a particularly valuable mode for the teacher to accustom himself to; it forms the foundation of all power of using illustrations; it stores his mind with a number of ready-made instances; and gives that readiness of resource—that aptitude for recognising and making use of resemblances on the instant—which is so important a factor in all good teaching. The faculty of detecting analogies grows very rapidly in most cases with exercise, more especially in finding any particular kind of resemblance to which the mind is habitually directed.

6. Natural affinity.—When two ideas associate themselves by means of some *natural* relationship or affinity which exists between them, one conduces to the revival of the other; and if the association is strong, or has been often repeated, the reproduction together is almost certain to take place. A monument at once brings to mind the dead hero; a battlefield arouses a great number of associated facts in this way; a certain house recalls the person who lived there; and a song or a rhyme may bring up a whole train of recollections of childhood. So national melodies associated with the home life, when heard in a

foreign land, may bring to remembrance home scenes and affections with such intensity, as to induce a positive disease of home sickness—nostalgia. The Swiss and the Scotch are especially liable to be moved by associations of this kind, and hence when Scotch regiments are on foreign service certain tunes, it is said, are prohibited. It is by the association of natural affinity that thoughts suggest speech in the case of people who are given to talk to themselves.

The teacher will find very numerous opportunities of making use of the kind of association we are considering. The memory will be largely helped by the arrangement of ideas in such a way, that any actual affinity which can be traced between them will be certain to receive attention. This is one reason why sequence and connection are so important in teaching. In geography the outline of a country may be usefully associated with the distribution of its great land-masses, the direction of the mountain chains with the form of the river-valleys, manufactories with the physical conditions exactly suited to their being carried on. Geography and history again will afford much aid to each other if taught in connection. So with natural history lessons, if the characteristic structure of certain animals is shown to be exactly suited to their habits and mode of life, both groups of facts will be better understood and remembered.

The effect of the discipline of natural consequences, also, will depend in no small degree upon the way in which the link between the act and the result is made clear to the intelligence. The formation too of proper natural associations is a powerful instrument in the formation of good taste, and the habit of referring facts back through the action of affinity to correct standards,

previously fixed in the mind, has an important influence in this and other directions. Unpleasant, frivolous, distorted, or false associations are all mischievous in teaching, the latter being perhaps most frequently found in the drawing of morals from lessons.

7. Logical affinity or dependence.—Rational associations formed through the logical dependence of one fact upon another is a most effective aid to reproduction wherever it exists. Physical laws should be carefully connected with the facts from which they are drawn. The power of the former to carry the understanding of the latter one stage deeper, and to connect them in series, should be pointed out.

The strongest illustration perhaps of this logical linking of ideas is afforded by geometry. A proposition of Euclid is a difficult and useless exercise if got 'by heart,' but if properly understood is not likely to be forgotten, at least if the general method of proof is borne in mind. It is important then in teaching, wherever reasoning is employed, to state every step with the greatest lucidity and in proper order, and further, to fix the attention upon the larger divisions of the argument, both with respect to their contents and grouping.

II. PRACTICE IN REPRODUCTION.—Every time we reproduce an idea, the expenditure of mental force necessary to do this grows less and less, while the ease with which we accomplish it becomes correspondingly greater. Thus practice in reproduction has a powerful influence on the readiness with which we bring up past ideas. As, in the case of the body, an action regularly repeated at last comes to be performed automatically, and passes into a habit; so in the case of the mind, we may acquire such facility in repro-

ducing certain information, that we do not feel the effort made or the working of the machinery. The mind seems to move without friction, or any kind of trouble on our part; we seem no sooner to recognise the want of a particular fact than it starts up into consciousness, and draws with it, by association, all related facts. This phase of almost perfect recollection has been called the organic memory, its materials being in most cases facts which have become thoroughly assimilated by the mind.

The unconscious reproduction of ideas, simply through the mechanism of suggestion, is well illustrated in the case of pianoforte playing. The performance of a difficult piece of music may be gone through quite correctly, while the conscious mind is engaged in thinking of quite other things, or carrying on a conversation with a friend.

It is the strengthening of the reproductive power by practice, which enables us to remember with such certainty and completeness facts we have frequently to make use of, and which gives such great value to *review courses*. Few teachers seem to take the trouble to estimate the enormous amount of information which is lost for the want of being occasionally brought to light.

We often speak of such and such a subject, we have learned, as being rusty, and the figure is not an inapt one; but we do not often consider what a very small amount of time and attention, properly applied, would have prevented its becoming so. It is a serious mistake to lose what has perhaps cost us a very large expenditure of strength to acquire, merely because we cannot just at present turn it to account. A little occasional labour will keep up that, which it would be

a long and laborious task to relearn when quite forgotten, even taking into account the greater ease with which we should learn it a second time than we did at first. The temptation is very strong to give no heed to what we do not at present want, and we should therefore be on our guard against it. Much may be allowed to go, it has perhaps served its turn, and the loss may never be felt to any important extent, but there are many things we cannot be always using, which it would be the greatest folly to let slip.

The longer we leave knowledge unused, the more overgrown does the path outward become, until at last the ideas are unable to struggle through. An occasional use of such information would have prevented it passing beyond our power of recall. It is very probable that many of our keenest recollections of childhood have been kept fresh, by having been suggested to the mind at certain intervals during the time which has elapsed, and that this bringing up to consciousness has given the necessary strengthening of the impression, before it had begun to fade.

The important thing is to seize just the moment when the idea is on the point of becoming dim and difficult to find. The reproduction just when this is about to take place accustoms the mind to retain knowledge for as long a period as it is conveniently able to do, and prevents any expenditure of time and trouble which is not necessary; but in practice it is often exceedingly difficult to recognise exactly the point when this is required. The period will often vary very considerably for facts learnt at the same time. It is always better to be well on the safe side. In some cases the period of revival is a matter of days, in others of

months, in others of years. The length of time which may elapse seems to grow with each reproduction, and we can usually form at least an approximate judgment when certain ideas are beginning to slip away from us. In most cases the student will find the great benefit of having fixed times of review for things he wishes to retain. He need not give the same attention to all the facts he refreshes his mind about; he will soon learn what he may safely hasten over, and to what he must give careful heed. The value of this systematic running over of past work at stated intervals can scarcely be over-estimated. In making use of review it is as well, when certain facts have been fully apprehended and associated in a particular way, for the student to keep to the same order to which he has been accustomed. This renders the recollection of them surer, and costs less labour to run over them. Carefully arranged topic-analyses, constructed by the student himself, or a book with the important points underscored, are often of use in freshening up information. Teaching the subject is another valuable exercise in reproduction. It not only gives interest to the facts, and compels us to reproduce them exactly; but also leads us to examine them more closely for purposes of explanation and illustration, than probably we have been in the habit of doing.

In carrying on the work of education, the teacher is specially concerned to see that regular review is properly arranged for and carried out. It is one great element of success. Lessons of review at convenient divisions of a subject, or after a course has been gone through, are very helpful—not only to memory by reproduction, but in strengthening weak places, and giving grasp of the work as a whole. But

perhaps the most valuable means of review for use in school is the *examination*, set with the distinct object of training—as a way of obtaining the careful reproduction of the things asked, of securing readiness in settling down to answer questions, of giving judgment in distributing time, of disciplining the mind to deal with a subject in a given space, and of accustoming the examinee to the process of selection, so that he may give the most essential points.

These examinations should be frequent, and should deal only with the parts of a subject which have been taught or prepared. They should require principally those facts which it is most important the attention should be directed to, so that they may become fixed in the memory. Examinations of this kind are quite different in aim, and will frequently be different in character, to pass or competitive tests, which are intended to serve a quite other purpose.

After a child has completed his school work, in many cases very much of what he has learned is forgotten for want of use, before its value is appreciated; so that when the usefulness of increased information comes to be felt, so much drudgery of early work needs to be gone through again, that the idea of self-education is abandoned. Austria seems to be the only country which has recognised, in educational legislation, the gravity of this fact. As far back as 1781 the law arranged for 'review courses of instruction' for children who had passed through the elementary schools; and this was completed by the law of 1816, which made attendance on the review courses compulsory, until the close of the fifteenth year of age, or the end of apprenticeship.

CHAPTER V.

THE CULTIVATION OF THE IMAGINATION, JUDGMENT, AND REASON.

MEMORY, conception, and imagination are frequently spoken of as the *representative faculties*, because each in its own way brings before the mind ideas previously gained through the action of the perceptive faculty. The terms, however, especially the two latter, include domains of such very varied extent, and are made to overlap to so large a degree, that the student at first is very apt to get confused. What one writer treats under a particular head is by another writer named quite differently, even when the same terms are used by both. It will depend upon the way in which we define imagination, as to whether it is to be considered an early or a late faculty; and the same may be said of the judgment. The latter term is frequently used as a synonym for understanding and reason; though by the understanding is often signified the whole intellectual activity, and by the reason sometimes the higher aspects of judgment, sometimes the logical processes only.

A. *Imagination.*

Imagination is most commonly spoken of as the power by means of which the mind images to itself

certain combinations of ideas. It takes as elements the ideas already existing in the mind, and selecting certain of these combines them in a way of its own; it may be with an intensity of realism, a vividness of colour, a completeness of detail, and, in its higher products, a perfection of beauty and a power of producing emotion, which completely surpass, in these respects, anything with which the other faculties supply us.

The elements are natural transcripts of real existences; the product may be merely an imitative and truthful picture intensely realised; or may be utterly unlike anything previously existing in the mind, either from its incongruity with natural things, or from its transcending them in all those qualities which go to make up ideal perfection. In the former case we pronounce the result unreal, grotesque, or extravagant; and this fantastic, whimsical, ridiculous side of the imagination, which aims mainly at amusement, is often denominated *fancy*. The imagination shows itself in invention, in illustration, in power of appreciation, in emotion, in dramatic power, in improvisation; and, lastly, in that wonderful insight into truth, and that extreme sensibility to beauty, which mark the genius of the scientific discoverer or the artist. It opens up many possibilities, and its value will depend upon the original strength of the power, upon the mode in which it has been trained, and the use to which it is put. On the one hand it may serve important purposes of culture, both intellectual and moral; it may add to our joys, give force to our virtues, and strengthen our faith; it may aid us to, discover elements of beauty worthy of our admiration in the commonest things and circumstances of life

and help to raise us above mere animal pleasures, or the absorbing contemplation of our own selfish ends, it may assist the intelligence to penetrate into regions unknown, and enable genius to unlock for us the secret chambers of nature, or fashion for us the beauties of art. On the other hand, it may usurp the power of the other faculties, and render the mind dreamy and unpractical; it may rouse evil passions, picture degrading scenes, and make vice alluring; it may promote a spirit of rash speculation, or blind enthusiasm, and lead to delusion or superstition; and, further, it 'may be employed for calling into being evils which have no existence, or for exaggerating those which are real, for fostering malevolent feelings, and for imputing to those with whom we are connected, motives and intentions which have no foundation in truth.'[1] Kept in check it is a most valuable servant, but allowed to run riot and override the other faculties it is a serious source of evil. Even its disproportionate and excessive use has a tendency to destroy the balance of the mind. It is well known that novelists and poets are more prone than other men of healthy minds to insanity. 'Great wits are sure to madness near allied.'

Imagination differs from memory, in that in the latter case we reproduce as faithfully as possible a pre-existing type, and carefully avoid mixing up any other elements than those previously held in connection by the mind. The business of memory is to present facts as they happened; there must be no rearrangement, no confusion, the more exact the copy the better; in imagination only an idealised similarity

[1] Abercrombie's *Intellectual Powers*.

is aimed at. Memory gives us a word for word translation, as it were, and confines itself to its subject; imagination gives a free rendering with added illustrations and digressions, which may be an improvement upon the original, but is not the counterpart of it. Memory reproduces only images of real and past experiences; imagination conjures up fictitious visions, and projects itself with equal facility into the past or the future.

The imagination is nearly always spoken of as of two kinds:—(1) *reproductive* or *constructive*; and (2) *creative.* By the **constructive imagination** is meant that everyday phase of the faculty, which allies itself for the most part with the intellectual side of the mind, and which is more particularly capable of cultivation, and more directly amenable to control. In its lowest aspects it is nothing more than extended conception; the power of rapidly combining and, as it were, objectifying ideas, of realising as vividly and truthfully as possible objects or scenes suggested to the mind—as the appearance of an animal we have never seen but have read of, the aspect of a foreign country from description, or the sufferings of a shipwrecked mariner from our knowledge of the circumstances. In common language we often say indifferently we cannot imagine or cannot conceive a thing. Some writers, indeed, make the word conception cover the whole of the constructive side of the imagination, but it seems better to exclude from the former term the elements of fiction or invention properly so-called—all such products, that is, as have no original.

The **creative imagination** concerns itself more especially with discovery, with producing for us works

of taste and beauty; and when working in the latter direction associates with itself a large element of emotion. It is but little amenable to laws, and in its higher forms is rather a special gift than a product of cultivation. At the same time, it may be greatly invigorated by training, directed in its action, and brought into harmonious working with the other faculties. It is modified by their influence, and in turn reacts upon them. It lends its aid to the settlement of what is to be done in a case of difficulty, acts as pioneer in the discovery of the way, and takes a large share in portioning out the work. It is, however, a late development, and except in so far as it is strengthened by the general means for the cultivation of the imagination as a whole, it does not fall within the ordinary province of the teacher.

That the imagination acts very early may be seen from the vague terrors of children at suggested evils, from their intense personifying power—as shown by their mode of treating their playthings, and the way in which they credit inanimate things with life; from their power of 'supposing' an object to be this or that, or of transporting themselves into imaginary circumstances; and from the keenness with which they feel the pleasures of anticipation. Many persons, however, seem to look with suspicion on the cultivation of this faculty as likely, either to render the child excitable, timorous, and apprehensive, and to inflame the passions, or to lead to that dreamy inactive state in which the mind seems always preoccupied with its own fancies. Others, again, failing to recognise the numerous useful functions of a healthy imagination, are inclined to view it as entirely ornamental, and useless for the practical concerns of life. As a matter of fact, however, the evils generally arise as the result of neglect of cultivation—from its having been left to follow its own bent, from the lack of proper regulation, and

from the absence of that proportionate attention to all the faculties which gives the mind its true power. Certainly the average child is bettered by the cultivation of the imagination. There is no subject of study which may not be aided by its proper use, and no position in life which may not be brightened by it, if led into proper channels. 'With reason,' as Professor Blackie remarks, 'it is often the best and the most indispensable of allies.'

The fact that imagination in all its phases makes use of materials already stored in the mind, indicates that the more thorough and extended the child's perceptional training—the more ample and varied the store of ideas—the more readily will imagination find the elements necessary to its combinations. But passing over the assistance rendered in this way, we proceed to speak of some of the more direct modes by which the teacher may foster the right growth of the imagination itself.

Nothing perhaps is more likely to have a beneficial effect upon the growth of this faculty, than promoting a reading habit, and providing children with wholesome and interesting books. There is now so much that is excellent, so much that will lighten many a weary hour, both in fiction and in poetry, that it is a real loss if no taste for, and power to enjoy imaginative works is given by the school. The necessary qualities of reading books will be spoken of in another place; but, in addition to these, the teacher may do much in guiding the home reading of children. Many of our large towns possess free lending libraries, which the children of reading age should be encouraged to use, the teacher suggesting good books and giving a word of advice here and there respecting the reading. Wherever too the

funds will permit, a small school library should be established. The books found in these are often too dry, too ill assorted, to serve their purpose well. Books devoted to information there should be; but these should not form even the larger part. In these days of cheap literature—often of the most pernicious kind—we have to present a counter attraction; and this can readily be found in thoroughly interesting books, good standard novels of the Sir Walter Scott type, stories of honour and heroism, fables and parables, books of travel and adventure, and a judicious selection of the poets. Nor need we be afraid of fairy stories or eastern tales, so long as the grotesque element does not preponderate. The teacher may often serve a double purpose by occasionally reading a short interesting story in school, with comments and questions. Valuable opportunities of training will also frequently occur during the reading lesson, and in the upper classes the children may be gradually led to appreciate some of the higher elements of poetry. The learning of select extracts of acknowledged excellence will not only store their minds with beautiful images, but tend to improve their taste, and provide them with standards for comparison.

Pictures again serve a very useful purpose in the training of the imagination, whether used as lesson illustrations or as occurring in books.

In some sets of reading books, the woodcuts throw no light, or only a confusing one, upon the lessons, and so far as their use in enabling the child to realise the story is concerned would be better omitted. It is a good exercise to allow a child occasionally to explain or 'read' the pictures, especially such as occur in the books he uses. This may best be done in the reading

lesson, the other children watching narrowly for errors and supplying omissions. The object is to elicit from the child just such a description or story, told in his own words, as the picture would exactly illustrate. The delight with which children enter into this work, the sudden brightening up of attention, the frequent skill in invention, and the little touches of humour and dramatic power displayed, render the exercise not only a good training for the imagination, but a useful and pleasant recreative break ; especially with a somewhat jaded class.

The 'picturing out' method in teaching is another aid in the culture of the imagination, and is most useful in such lessons as geography and history. And lastly, in addition to the various means described, much may be done by directing attention to the beauties of nature ; by quickening the observation, and pointing out elements worthy of admiration in the objects brought under notice ; by encouraging little experiments, mechanical inventions, or ingenuity in overcoming difficulties ; by the recital of noble, courageous, or generous actions, and by promoting the formation of a high ideal of conduct and the constant struggle after a higher degree of perfection.

In the case of children given to day-dreaming we must stimulate to activity, both of body and mind; we must arouse their interest, encourage play, and by giving them a full share of such work as answering questions during teaching, leave them little opportunity for turning their attention inwards.

Finally, the best means of keeping the imagination in its place, when inclined to be unduly active, is not by systematic neglect—for it will find food without our aid—or any attempt at suppression; but by

increased attention to the strengthening of such faculties as the judgment and the reason in opposition to it, and by removing as much as possible all emotional incitements to its operation. In any case, we have so to distribute exercise amongst the various powers that each may have suitable opportunities afforded to it, and the mental balance be as far as possible preserved under all circumstances.

B. *Judgment.*

When we mentally place side by side two notions or two objects or two courses of conduct, in order to examine them as to their agreement or disagreement, their truth or falsehood, or as to whether this or that is the right course to pursue, and we decide what is to be thought or done, we are said to use our *judgment*. In any case judgment supposes comparison, either conscious or unconscious, and selection or choice of one view rather than another. All thought thus involves judgment, and we see that assertions or propositions, which are but expressed judgments, must be either positive or negative in form. The term judgment is often made to cover a great deal of ground, including not only reason, but almost every phase of mental action. As Dr. Carpenter remarks, 'all the faculties are exercised in an act of judgment,' which according to this view comprehends the *entire process* of arriving at a decision. Still, it is quite possible to confine the term to the mere balance of data provided by the other faculties, and the expression of the result. Just as in building a house the making of the bricks, the sawing of the wood, the carting of the materials, &c., are all necessary steps;

yet they may be kept quite distinct from the actual process of building itself.

As previously pointed out, *reason* is often employed as a mere synonym for judgment, but more usually it is confined to one phase of this faculty—the mental act whereby we consider in connection the force of certain previous judgments or facts of observation, and in consequence of this consideration pass on to another decision founded upon them. We shall find shortly that we commonly do this in one of two ways, either by a *deductive* or by an *inductive* process. Reasoning is thus nothing but a higher form of judgment, involving comparison and the drawing of an inference; an intentional starting with known facts to arrive at something as yet unknown; an act of judgment according to certain fixed methods of procedure. The reasoning processes therefore serve to give direction to the working of the judgment, and form as it were a kind of machinery of search after truth.

The province of perception is to present to the mind outward things; the province of the representative faculties is to recall past ideas or image forth new combinations; the province of the judgment and the reason is to compare and decide—'to strip away what is merely temporary, in the multiplicity of daily experience, and to retain that which bears upon it the marks of an universal truth, valid alike in the sphere of nature and in the region of thought.' The products of perception are ideas, and the signs *words*; the products of judgment are decisions or propositions, and the signs *sentences*. The accurate wording of ideas and conclusions is a consideration of vital importance in connection with the judgment, and deserving of careful attention on the part of the

teacher, both as a study, and in connection with his work. It is not sufficient only to have right ideas, or to judge correctly; if we wish to free ourselves from all haziness of conception, to retain our notions or decisions clearly and accurately, to make them of benefit to others, or to use them readily ourselves, the expression of them in precise and compendious language is a necessity. 'A country may be over-run by an armed host,' says Sir W. Hamilton, 'but it is only conquered by the establishment of fortresses. Words are the fortresses of thought. They enable us to realise our dominion over what we have already over-run in thought, to make every intellectual conquest the basis of operations for others still beyond.' It is thus a necessity in good teaching to attend to both *ideas* and *words*, *thoughts* and *expression*. We must not only see that the child grasps our meaning, but make him give back his knowledge in his own words. Questioning, writing abstracts of lessons, and examinations, are all useful means to this end. Hearing words frequently and accurately used, with plenty of exercises demanding their employment, and the correction as well as detection of the errors he makes, will do more for the understanding of a child than any number of formal definitions.

In explaining a word, to isolate it and give a dictionary definition, even when within the range of the child's comprehension, is the wrong method. It should always be treated in connection with the context, and the sense of the passage taken first. Sometimes this will be sufficient, and at least it will then be easy to narrow down the meaning of the particular word to the idea required. This will not only enable the child to give the signification of the word, but will show him how it should be *used*. Every teacher

knows that a child is frequently able to give the purport of a passage containing a difficult word, while he is quite unable to give the sense of the particular word when taken away from its connections. One meaning at a time is all that should be attempted. It is a common error to dwell upon the various significations of a new word with children. Such a proceeding is pretty certain to end in nothing but confusion, until a somewhat extended knowledge of words and meanings has been acquired; even then it needs tact and skill. A child's ideas and vocabulary should run side by side; to endeavour to teach either out of proportion to the other is a mistake.

The everyday requirements of life are continually calling upon us for exercises of judgment, many of which we are enabled to verify and correct. The actual results of these judgments, although they may have passed from the consciousness, seem to give the mind a kind of instinctive power of looking into things, and arriving at a decision without any very definite realisation of the grounds upon which the judgment is based. This faculty is usually spoken of as 'common sense,' or 'good sense,' and often exerts a very large influence upon our ordinary decisions. The more extended and varied our experience is, and the more determinately we endeavour habitually to arrive at just conclusions, the more valuable does the intuitive help to be derived from common sense become.

On the other hand, as each one of us is placed in certain circumstances, which are in many respects similar from day to day, any particular decision we arrive at has an influence upon the next act of a similar kind which we are called upon to perform. Thus our judgments tend to fall into special lines, and we

come to form certain 'habits of thought,' as they are called; the mind takes a natural bent, and looks at things from a particular point of view. This habitual mental attitude very materially influences our judgment. Prejudices are simply exaggerated forms of this natural bias; and in a similar way arise certain class narrownesses from which very few persons are wholly free. These ingrained tendencies account too for the very different value assigned to particular grounds of judgment by different individuals, and the very diverse decisions they sometimes honestly arrive at respecting the same thing. The prevalence and persistency of error show us how difficult it is in many matters for us to come to a right judgment, and how easily we may be led astray. These mental tendencies are thus very apt to mislead us, to warp our views, to keep out of sight certain elements which should receive consideration, and to make us uncharitable and forgetful of what is due to others. It is therefore highly important that we should be as free as possible from the effects of previous mistaken judgments; that we should keep selfish motives or party interests out of consideration; and exercise due caution in restraining our emotions, our likes and dislikes, within proper bounds. We should also accustom ourselves to make ready allowance for factors we may have overlooked, and to view any subject brought before us for decision in as comprehensive a manner as possible.

Now as these 'acquired conditions of mind' are many of them formed while we are young, and as habits then generated act with greater force, and are much more tenacious, than those developed later in life, it is clear that the teacher should endeavour, as

far as he is able, to see that the tendencies formed by the child are correct ones: that his views are broadened as much as is consistent with his age, and that much suitable and corrected practice in judgment is afforded him. What we have to aim at is to give exactness of observation, readiness of comparison, and promptness of decision; and to steer clear of rashness on the one hand and indecision on the other.

The importance of a sound judgment can scarcely be over-rated. It 'assists moral education by enabling man easily to distinguish good from evil. It prompts him to regulate his conduct according to the various situations in which he may be placed. It produces tranquillity of soul; for it guards against violent emotions, by the mental habit of bestowing on all things the attention which they deserve, of considering them in their true light, and estimating them by their just value. Without rectitude of judgment, man is a slave to prejudice and passion; his memory only exposes his folly; his imagination and sympathies continually lead him astray; his habit of observation multiplies his errors; his spirit of invention and discovery causes his ruin; his reasoning, although it may be logical, by starting from wrong premisses brings him to false conclusions. Even moral qualities often become dangerous when unaccompanied by sound judgment: courage degenerates into rashness, indulgence into weakness, frankness into indiscretion, economy into avarice, and religion into superstition or fanaticism.' [1]

Judgment in its simplest form begins to act at a very early period, long before anything of the nature of what is usually meant by education is brought to bear upon the child. It is remarkable how soon he learns to trace analogies, detect differences, and come to simple decisions respecting the things around him.

[1] Marcel, *Language as a means of Mental Culture.*

As in the case of the other faculties, if we would have a child judge well we must lay the foundation in clear and accurate perceptions. These not only store the mind with data for future use, but their acquisition affords numerous opportunities of exercising a child's judgment in a suitable manner. It is thus necessary, from this point of view also, that we should train the child's observation, extend his experience of things, and strengthen his power of grasping their reality and meaning. Hazy and imperfect understanding can only end in weak and mistaken judgments. It is the training to be gained by the 'object lesson' which gives it its main value; the facts are of secondary importance. If the knowledge we present to the child is not such as he can employ his powers upon, or is so crowded as not to give him proper time, we must not expect that his judgment, or any other faculty, will be much benefited.

We have seen that in judgment we have two steps to take into account—comparison and decision. Now as the correctness of the latter depends upon the success with which the former has been accomplished, and results naturally from it, it follows that the great means for the early cultivation of the judgment is to accustom children to perform rapid and accurate comparisons. How valuable this process of comparison is, in connection with the whole intellectual training, may be seen from the fact that it includes two of the three functions into which Professor Bain reduces all strictly intellectual operations—the detection of similarities and the discrimination of differences.

With children, so far as judgment is concerned, we must begin with objects; the order of the exercises being comparison of things as wholes, then of their

qualities, &c., then of simple conceptions, passing on gradually to more complex acts of judgment and simple reasoning. We may seek to bring out by comparison, similarity difference or identity respecting (1) *quantity*—as size, number, degree, equivalence, &c.; (2) *properties or qualities*—as shape, colour, texture, hardness, &c.; (3) *functions*, or modes of action, uses, &c. We may also view two things as to their *sequence* and *relationship*—the dependence of one thing on another, which we speak of as cause and effect; the relation of a thing to its surroundings, or adaptation to circumstances, and so on. The work of comparison must be done as far as possible *by the child*, the teaching being directive and suggestive. Nor must there be any formal array of the measures we adopt. The more natural and unrestrained the lessons are the better; and here as elsewhere our machinery and plans should be kept as far as possible out of sight. The exercises of the judgment in children, the comparisons they are called upon to make, should be incidental rather than systematic, especially at first. It should not be forgotten that the main things to attend to during the early stages are perceptive and conceptive training, and that the larger share of the teaching should be directed to this end. Still the teacher will find almost every lesson he comes to will supply opportunities of cultivating the judgment, and these he should not neglect.

Later on definite lessons of comparison will be found very useful, if properly managed; but even here other things will of course also need attention. While the teacher should not forget that a distinct purpose—that is, distinct to him—is essential, he must at the same time be careful not to let it run away with him,

Elaborate special lessons, put into the strait-waistcoat of a rigidly fixed purpose, are generally wearisome; they lack the necessary freedom for a good lesson, there is not sufficient room left for the children's minds to stretch themselves, except just in the way proposed, in consequence of which interest and attention flag, and little good results. The ends proposed, no matter how minute, may be reached without this.

After progress has been made in the power of detecting resemblances, both of objects and qualities, we may gradually extend our comparisons to conceptions on the one hand, and to a number of objects on the other, passing thus to simple exercises in generalisation and classification. Here the attention has to be directed to the detection of the elements common to the objects or conceptions examined, and when they have been discovered the child must be led to select some common characteristic as a test of agreement to be applied to other objects. Lessons on plants or animals taught in the simplest way, with plenty of specimens in the one case, and of pictures or models in the other, with frequent use of black-board in both, will afford opportunities for a large number of very simple exercises in classification. Numerous other objects suitable for lessons will also supply materials for a similar training.

As the child's power strengthens and he becomes able to understand them, the cultivation of the judgment may be carried into moral matters, and the exercises be made gradually more and more complex up to the limit of his power. We must nevertheless be careful not to go beyond it, and to proceed very slowly. History and Biography afford much material

for the formation of simple moral judgments, and if properly used will lead to good results. There is, however, always the danger of going too far.

If the child is to progress he must be left to judge for himself in the cases put before him for exercise, not simply learn what *we* think about the matter. He must be taught to recognise what are essential characteristics, and what are merely accidental or variable, and to fasten his mind upon the important points. We must here be very patient over his errors. It is a great mistake to show displeasure at the faulty judgments of a child where such care as he is capable of has been exercised. Encouragement is what is wanted. Right judgment cannot be compelled nor growth hurried by compulsion. Displeasure takes off part of the child's attention, thus increasing the difficulty of correct decision and he cannot but feel the injustice of blaming him for the want of a power not yet developed to the point required.

At the same time that we endeavour to give him confidence, we must be very careful not to allow him to fall into that form of conceit which fancies itself capable of deciding upon every question, no matter how difficult. He should be shown that we must not be too confident about what seems to be the evidence of our senses—that the horizon, for instance, is not the boundary it seems, nor are the stars twinkling points of fire. There are very numerous cases in which, even when he has made much progress, it is manifestly impossible for him to come to a correct decision, except by a process but little, if at all, removed from the harmful practice of guessing. These he must be content to accept on authority. This is only what we all have to do, to a greater or less extent, through life; and to allow a child to grow up with the notion that he will ever be able

to judge correctly of all things is to foster that habit of intellectual pride which leads to dogmatism, and so often presents an effectual bar to further progress.

Finally, it should be borne in mind that judgment is not a thing which can be picked up by imitation, or which by any means necessarily accompanies the acquirement of information; and that though every school subject may be made usefully to afford exercise to the judgment, it is only in so far as the work is intelligent that we have a right to expect any useful results.

c. *Reasoning Processes.*

We nave seen that when in order to arrive at a conclusion we formally arrange for consideration, and define the extent of, certain truths to be used as materials, and from these develop some further truth related to them, we are said to reason. If we consider a large number of individual cases, and from these draw a more general truth, we are said to reason *inductively*. If, on the other hand, we start with a general truth and a more particularised one having a link of connection with it, and from the examination of these premisses, as they are called, we recognise that they involve a third truth, or inference, we are said to reason *deductively*. Whichever process we adopt we see that reasoning depends upon the law of similarity. As general truths are looked upon as the highest forms of truth, in inductive reasoning we are said to reason *upwards*, in deductive reasoning to reason *downwards*. The grasp of a truth by the higher operations of reason 'implies far more than the attainment of a bare definition of it. It implies that we have penetrated to its very centre, that we can

trace its pedigree in the world both of matter and form, that we can regard it as one link in a connected chain, of which we are able to tell the antecedents and *foretell* the consequents; that we can recognise it, in fine, as a *particular* manifestation of some great and universal law, the operation of which we have learned to comprehend and apply.'[1]

The **process of induction** leads us from particulars to the discovery of more generalised forms of truth; it searches for causes from a consideration of the effects; it gathers up a number of facts or individual experiences, and states the conclusion to be drawn from them in a brief and convenient formula. This general conclusion, or experiential truth, may take several forms, according to the kind of generalisation made. If it sums up the several common characteristics which distinguish a group or class of things, so as to enable us at once to say whether any new individual does or does not belong to the group, it is called a *definition*. If it states a general truth in a way which serves to express the conditions or common mode under which things exist or act, it is called a *law*; or if viewed more particularly with respect to its influence in leading to further action or discovery, a *principle*. If it is of far-reaching application, combining, it may be, a number of less comprehensive laws; if it serves to bind together a large number of individual facts into a harmonious whole, where each has its proper place, and it carries our explanation of things a step further back towards their final cause, it is called a *theory*.

The points to which we have to pay attention in induction, and upon which the value of the results

[1] Morell, *Elements of Psychology*.

depends, are, (1) the correctness and care with which the particular facts have been observed; (2) the importance or essential nature of the points of similarity contained in the truth arrived at; (3) the comprehensiveness of the generalisation; and (4) the neatness and exactness with which the result is expressed in words.

Induction is a more extended and complete process than simple generalisation. The latter enables us to recognise the common element, or quality, existing in certain objects; induction proceeds to draw out this quality by itself, states it apart from, and independent of, the facts upon which it is based, and extends its application to all further things of the same kind. It is the method of the so-called experimental sciences. By means of the generalised truths to which it leads, we are able to grasp and retain the facts of nature in a way which would otherwise be impossible. It organises, or systematises, our knowledge of outward things, and gives it its scientific character.

The **process of deduction** is the reverse of that of induction. As noted, it commences with axioms, or generai truths arrived at by induction, or any admitted forms of truth, and reasons from these to a number of more particularised or detailed truths. These inferences, as they are called, may be made the basis of further reasoning; and we may proceed from one to another until we have a chain of reasoning, not only giving us a final truth, but from any link of which a new departure may be made for a branch chain of argument.

Deductive reasoning enables us to trace causes into a large number of effects, but of the causes themselves it tells us nothing further than is originally assumed. It is the method of the mathematical, or pure sciences, as they are

called, and appears to be based on the consideration that the whole must contain the part—the greater include the less. Where the starting points are axioms, as in the case of pure geometry, the results, if correctly arrived at, must be as absolute as anything within human experience, and are therefore sometimes spoken of as necessary truths.

The three parts, or premisses and inference, involved in a single process of deductive reasoning, formally placed out in proper order, are called a *syllogism*. This is not the means whereby we reason, for we do so quite independently of it or it may be in ignorance of it; nor are we often conscious of the presence of the three parts the syllogism requires. In the great majority of cases, one of the steps, at least, leading to the inference is passed over without conscious recognition; the mind takes it for granted, as it were, and we link on inference after inference till we reach the point required. The syllogism is really a test to apply in difficult cases to see if we have reasoned correctly, and discover where we have gone wrong. In this way it is of frequent use. It is a method of discriminating the steps and scrutinising the whole process; it teaches us what sequences are allowable, and cautions us as to the errors most frequently committed in drawing inferences.

A child's progress in learning to reason depends largely upon the way in which his mind has been fed; how he has been taught to observe, and how far such exercises as have been provided for him have been kept well within his power. It is only when a child has gained a number of clear conceptions, when he *knows* the things for which they stand, when he has been taught to examine them side by side and distinguish their characteristics, that he can be usefully taught to reason about them, no matter how simple the exercises may be. It is true that a child infers from a very early date, but he does this unconsciously,

and knows nothing of the process by which he does it. His reasoning powers are, as it were, the wings with which he will eventually have to fly, but they are weakly *at first*, and should be left to develop themselves without our interference, until they have strengthened sufficiently to be usefully employed. The most we should attempt is to correct errors in their use. Anything of the nature of systematic training in the earlier stages is completely out of place, and is likely to lead to much mischief; both by overstraining the powers it is intended to benefit, and by drawing off the attention from other necessary things. Gymnastic exercises, both physical and mental, have a use and a proper place in the training of the child, but this is not during the first period, when growth, and not the power to exert in any particular way such strength as he possesses, is the essential thing. It is proper food the child wants, both for body and mind; he will find his strength by-and-by. In early years he is more occupied in taking in impressions, in learning *what* things are, than in troubling himself about their relations and consequences. The teacher should never lose sight of the fact that it is as fatal a mistake to overtrain the child as to neglect him. Such simple and occasional trial trips in reasoning as occur during the course of his lessons, we may allow him to take just to stretch his wings, but we must keep our paraphernalia of training out of the way, and let him go his own gait for a time. It is impossible to insist too strongly upon making a child's lesson-work in early years as natural and joyous for him as may be —play with an element of work in it, if you like, but in spirit much what good play is to him. He is a child, and should be treated as one. We must not fall into

either extreme ; and while on the one side deliberate cultivation of the reason must not be undertaken too soon, on the other it must not be neglected after the child is well capable of receiving proper logical training. Some children are both quick at and fond of reasoning ; there are many others, whose minds are quite strong enough for the attempt, but who rarely make any effort—these need to be stimulated ; and there are still a few, who seem incapable of progressing beyond the very simplest exercise of the power. When the child is able to bear them, easy incidental exercises in inductive reasoning, especially concerning objects, may be given. These join on so readily to simple exercises of judgment, and may be used with so little formality, that they may usefully be employed long before any direct attempt is made to cultivate the deductive power.

The foundation upon which inductive training must be built is exact and ready observation. Defects in this respect may arise from want of attention, lack of the necessary skill, or ignorance of what to look for. All these things have therefore to be borne in mind in our teaching, and a remedy, as far as is practicable, provided. When once the child is capable of making very simple generalisations, opportunities of practice will be afforded by almost every school subject. Very simple experimental lessons, with only a few central truths, and a large number of illustrations, are, in their proper place, very useful. Many arithmetical rules are best taught inductively, by making children feel what is wanted, and then step by step supplying the materials and suggestions necessary for the evolution of the rule itself. Again, in teaching the parts of speech, the best plan is, to let

children examine a large number of words of the class we wish to define, taken in sentences, so that their connection may be clear; then to lead the pupils to discover the common characteristics of these words; and finally to word an effective definition. In teaching science it is very easy to see also, that, with children at least, the descriptive parts should be taught first; the laws being slowly led up to in order of difficulty, and the information the children already possess made little by little more exact, connected, and scientific in form.

As the child's education advances, we may increasingly take advantage of such chances of more difficult inductive training as fall in our way, and gradually extend the use of the process beyond the sphere of observation into the region of thought. The real work must be done by the child, the teacher placing the materials in the best way, removing difficulties, and directing the attention. We must not allow a child, however, to blindly suppose that all the conclusions he arrives at by induction are necessarily true. He must be taught the difference between absolute certainty and very high probability, cautioned as to generalising on too few cases, and led to test his results by further observation.

When we come to deductive exercises, we must be content to go very slowly at first, and take the utmost care that the child actually reasons, not that he merely adopts our views and conclusions. Mere repetition of a process is not a satisfactory test that the child has grasped the reasoning as he should do. Let him think for himself. If we are careful that the words employed express the idea in as exact and simple a way as possible, and see that he clearly

understands the facts from which he is to start, we shall often find that he will reason quite readily. The work to be of use must therefore be spontaneous, and as little fettered as to form as may be. Even when we definitely aim at exercising his reasoning power in a lesson, he should be the last to perceive this. Care is necessary that the exercises demanded do not require either greater grasp of the materials, or greater insight, than can be justly expected of him. We must have considerable patience, encourage him to attend carefully to what he is about, and repress any tendency to haste or randomness. We should endeavour also to reason in all cases justly and simply ourselves, and listen patiently to any objections he may urge. These show that his mind is actually working, and we should not silence discussion by the interposition of our authority, or pooh-pooh difficulties without explaining them. The child will learn many valuable lessons by his mistakes, if they are treated in a proper way, and will be encouraged to further efforts, not disheartened by feeling either that the work is beyond his power, or that his attempts are not appreciated.

'Why' is the introduction to many simple exercises of reasoning, but it is a much more difficult question, especially to little children, if anything much above a guess is expected in answer, than is often recognised. It presupposes the power to think. Its use is not to make a child reason—except in so far as the expectation of the question being put in future cases may lead him to do so—but to compel him after he has stated an isolated fact, which should be an inference, to go back and show us the grounds upon which he arrived at his decision. It demands the expression

of what should have been the process in his own mind, and this is often more difficult to the child than the reasoning itself.

Grammar provides us with many useful and easy exercises in deductive reasoning—especially in parsing and analysis. In deciding upon a part of speech, for instance, the rule should be: first, to make the child fix his attention on the *use of the word*; secondly, to consider this in connection with the definition used as a test, or it may be several definitions, until the one which corresponds is selected; and, thirdly, to infer from this consideration what class the word belongs to. This is the direct logical order, and hence the child should be taught to say, 'the word does so and so, *therefore*, &c.,' not 'the word is so and so because, &c.' The latter, although satisfactory as a restatement, is not the order of discovery, the one the child has to use; and the habit of stating his conclusions in this way, more especially at first, leads to the attempt to apply this method in practice—the guessing at the correct thing first, and then trying to substantiate the guess. All elaborate reasoning should be avoided with children, and nothing of the nature of sustained argument put before them until progress in simple reasoning has been made. We may often then succeed, by proceeding cautiously and steadily, in so linking one point to another, that children may arrive with us at a final truth we wish to reach; but even here, though they pass readily from link to link, they are unable to survey the whole chain. Formal demonstration is often attempted most unsuitably in lessons, and, until the child has power to grasp its meaning, fails to serve any useful purpose. It tends to delude the teacher as to the value of the work done, and not

only adds much to its difficulty, but is apt to give it a learned and repulsive aspect. Euclid, taught in an intelligent way, and at a proper period, may be made to yield a valuable training in formal reasoning; but learned in the way it frequently is, it is almost valueless for children. Each proposition needs to be taken to pieces, each step fully stated and simplified, and the whole taught independently of the book, until it is thoroughly understood. At first the teacher can scarcely proceed too cautiously, or make each step too sure. The book form of the proposition may then be given, as a compendious statement of the entire work. After a few propositions treated in this way, the help of the teacher in analysis will be less needed, and the pupil may be left more and more to himself. He must be made to master each proposition thoroughly as he proceeds, and will soon, if properly dealt with, gain the power of grasping the reasoning from the book. He will then need direct help only occasionally; frequent and searching questions being nevertheless continued for some time to come. Properly taught, it ought not, to the majority of boys, to be the difficult and profitless subject it is often found. The child has not made the method of reasoning his own until he is able to work simple geometrical exercises for himself.

Defects and errors in reasoning are of very numerous kinds. The principal types of these 'fallacies' are clearly described in books on logic, to which the teacher should refer, and make himself acquainted with such facts as are likely to be useful. Faults in reasoning will be found to be mainly of two kinds—false assumptions or defective attention to the foundation facts, and unsound inferences or defective

ways of arriving at a conclusion. It is the teacher's business to take heed in the case of children, that they realise distinctly what they are reasoning about, that they do not mix up what is assumed with what is proved, confuse an illustration with the point at issue, mistake mere sequences for relationship of cause and effect, condemn the whole for the defects of the part, or get into a habit of drawing inferences without sufficiently careful examination. They must be guarded from rash confidence and credulity on the one hand, and the suspicious doubting habit, which is always on the look out for objections rather than truth, on the other. Rightly managed the reasoning processes will be to the child of the highest value and service through life; but, defectively handled, they may prove a constant source of both error and trouble.

CHAPTER VI.

THE SCHOOL WORK OF THE TEACHER.

THE teacher's work in school naturally falls into three great divisions, which, taken in logical order, are :—(1) organisation ; (2) discipline ; (3) teaching ; and unless all three receive due attention the work is not likely to be performed with that efficiency, that economy of time and labour, both of the teacher and of the pupils, and that absence of friction, which should characterise the operation of every good school.

1. **Organisation.**—This includes everything which has to do with the *machinery* of the school ; the consideration of the suitability and adaptability of the room, and of all materials and arrangements for carrying on the work.

It is evident that the first consideration, in order of time, with respect to our educational machinery is the schoolroom itself ; and, although the teacher's opinion concerning this may be seldom asked, it is none the less incumbent upon him to know what a thoroughly well-arranged school-building should be. This is necessary, in order that he may know how to make the best use of such arrangements as exist ; for, if the evils be such as cannot be entirely eradicated, they may in most cases be modified and reduced to a minimum by a well-informed teacher. A man who has

tools found him may often have to work with faulty ones, but that is no excuse for ignorance of what perfectly good tools should be. The main points to which attention must be given, are the number, shape, and size of the *rooms* ; the drainage, light, warming, and ventilation ; the fittings and furniture ; and the playground and its appointments.

The rooms having been built, furnished, and arranged, are now opened for the reception of the children ; and here comes another subject for study. What are we to do with the children ? How are they to be arranged in classes and divisions ; and what principles are to guide us in this *classification* ? This settled, it becomes necessary to officer each class, and we are led to the consideration of the proper *distribution of the teaching power.* All are now ready for work ; but what are they to do ? This must not be left to accident, or to the decision of the moment ; and in order that no two lessons may clash, that none may be neglected, that each may be taken at a suitable time, we must distribute both the subjects and the time—*i.e.* we must prepare a *time table.* We shall need also the use of *apparatus* and *books* ; and the teacher should not only know what points of excellence to look for in each, but the merits of the various kinds in common use. The work can now go on without hindrance ; but there is still an important branch to be considered, namely, the *registration.* It is necessary to the well-being of the school, and is a condition of Government grant to elementary schools, that a proper record should be kept of each child's attendance, payments, progress, and of various other matters.

We see, then, that organisation includes the consideration of the following topics :—(1) the room and its appointments ; (2) the classification of the children ; (3) the distribution of the teachers ; (4) the apportionment of time and subjects ; (5) the apparatus and books ; and (6) the registration. We must carefully guard, however, against the notion, which seems to have

become by no means uncommon, that when we have attended to the organisation of a school we have done all that is necessary to secure a satisfactory education to the children, and that the rest may be left to chance. Organisation is a means not an end. The most perfect system of schools, appointed in the most costly and elaborate manner, and properly officered, is, after all, but the machinery of education, and *may* fail to secure the objects for which it was brought into existence.

Dr. Rigg very pertinently remarks on this subject, 'It is common to speak of national education, as if all that was or could be meant was a system of schools, or at most of schools and colleges, for the people. The schools of the nation, it is never doubted, will educate the nation. . . . The nation never will or can be educated, as a whole, until it is understood that schools can only furnish a part, perhaps hardly the most important part, of the education of the people. A nation may have a system of schools as complete as can be organised, and yet be very imperfectly educated. On the other hand, a nation might have a very imperfect system of schools, or no system of schools at all—might have none but purely voluntary schools, or none but voluntary and parochial or municipal schools, without anything like a State system, and yet might be much better educated, might be a people of better knowledge and of better character, than the people of another country where the system of schools was as complete, and as theoretically perfect, as could well be organised.'

2. Discipline.—Although much is done towards securing successful teaching when we have perfected the organisation of a school, yet it is clear much also remains to be accomplished before we can insure that the work shall go on without waste, and under the most hopeful conditions for success. Discipline must

step in and give the *law* of the school, the method of its government, the mode of working, and the active measures necessary for the moral training of the children apart from direct instruction. It concerns itself mainly with the *conduct* of the children; it endeavours to render them amenable to control, so that the work may not be marred by disorder; and it includes all those influences of example and government brought to bear upon the pupils in order that they may grow up manly and courteous, right-loving and God-fearing.

Hence the teacher needs to consider carefully the best means of securing such matters as order, obedience, candour, truthfulness, honesty, diligence, kindness, cleanliness, attention, good manners, &c.; together with the motives which may be most usefully employed at different times, the general measures of government, example, public opinion, praise and censure, rewards and punishments, and many other things of less importance; in a word, all that tends to right action, order, and law.

Nor must it be supposed that disciplinary measures in themselves are all that is necessary even to moral education. We have to train the child to act in a reasonable and not a slavish manner, and must therefore not only control and guide him, but by our teaching we must so inform his mind with direct precepts, so strengthen his intelligence and exercise his judgment, that he may gradually be led to independence and self-control. And, in order that as few unnecessary difficulties as possible may be placed in the way of good school conduct, we must see that the disciplinary working is not marred by the action of defective arrangements under organisation.

3. **Teaching.**—Having organised our school in the

best practicable manner, and having made the necessary disciplinary arrangements, the way is now clear for the third great division of our work—teaching. Here we have naturally three things to consider: the person taught, the materials for teaching, and the *methods* of using these materials.

a. In order to mould correctly the faculties of the child, it is necessary first of all to know something of the laws which regulate the growth and action of these powers. A knowledge of mental science and physiology (as has been noted) will here be of much service to the teacher, but *no amount of book knowledge can compensate for the want of careful daily observation of the pupils themselves.* To treat them successfully, the teacher must know his children: know them individually—each with his peculiarities of intellect and temperament, his weaknesses, and his strong points—so that when the opportunity arises, the teacher may say the right word, and do the right thing, may adjust both his teaching and discipline, as far as possible, to meet the needs of the case. Thus, constant experimental study of the pupils themselves cannot be too strongly urged; and the larger the amount of knowledge and experience of this kind the teacher possesses, the more free from error will his practice be.

b. The subjects of instruction which furnish the knowledge, or material, which the teacher has to make use of, will vary to some extent with the school and the grade of advancement of the pupils. No matter what the subjects, it is absolutely necessary that the teacher should know clearly and well those portions he intends to teach. Nor must he, if he would do this well, by any means stop here. Unless he knows much more than he expects to teach, he will find that his lessons will be stiff formal affairs, lacking elasticity, variety, and freshness, and marred frequently by want of interest or illustration. He will be unable to answer many of the questions on side issues, which are

always likely to be asked by children, and he will lack confidence in himself accordingly. Lastly, he will find his teaching a source of dissatisfaction to himself, from the consciousness that he is not doing his work so thoroughly and skilfully as he might do.

The greater the amount of accurate information he has at his command, the more useful, easy, and pleasant will, *cæteris paribus*, the work become both to himself and his pupils. With a reserve of capital he will have no fear of bankruptcy, and will be able to cash readily any draft which may be presented to him. On this account the teacher should never give up his private reading; which will not only give knowledge, but keep alive his sympathy with the pupils' difficulties; and above all men, he should learn to go through the world with his eyes open. Unless he is constantly accumulating new information, his mind will not only become like a stagnant pool, but he will find that what he possesses is gradually evaporating. There is no state of equilibrium here: *non progredi est regredi.*

c. For the teacher to know his subjects well, from an examination point of view, is one thing; to know them in a form suitable for presentation to his scholars is another; while to be acquainted with the best *methods* of communicating the knowledge he possesses—the principles which should govern his teaching, the various devices he should make use of, and the share of the work he should exact from his pupils—is still a third. He must not only know the rules of method which should guide him in his art, but should also be acquainted with the principal laws of mind and body upon which his methods depend. The art of teaching is by no means easy to acquire thoroughly. 'The art,' says Lord Bacon, 'of well delivering the knowledge we possess to others, is amongst the secrets left to be discovered by future generations.' We have no doubt advanced in many ways since his day, but no *teacher* will say but what an immense deal remains yet to be done, both in way of observation and experiment, and of organisation of results.

Attentive study and careful practice will do much; but the teacher needs to be very careful how far he considers either his knowledge of, or skill in, his art perfect.

It by no means necessarily follows that by carrying on the work of teaching we are at the same time carrying on the work of education in its true sense. Perhaps few points have been more carefully insisted upon by writers than the difference between education and instruction. 'Instruction,' says M. Rendu, 'gives a man a certain amount of knowledge and certain talents; education cultivates the faculties by which knowledge must be acquired and talents turned to practical account. By instruction we learn certain things: education enables us to use properly what we have learned. Instruction gives us resources to meet such and such a condition of life, and prepares us for a particular career; education puts us in possession of general rules applicable to all circumstances and all careers. It is education in short—and this is the great reason of its excellence—which, by forming the moral character of man, suitably prepares us for the high destiny of our nature, and enables us to reap the advantage of all the gifts we have received from Providence; it cultivates the first stage of existence to make the whole life fertile; it guides us throughout this transitory scene; it prepares us for our eternal state. Instruction and education, though distinct, are united: they mutually support each other; the one without the other is incomplete. In vain shall we have exercised all faculties, if we have not applied them to any object; but it would be dangerous on the other hand to give knowledge and light without imparting at the same time good

habits to guide us in using these intellectual treasures.'[1] And we may add from Willm, 'Unlike instruction, education, however imperfect—provided it is in harmony with human nature—is always a benefit; and no excess of it is to be feared with respect to the social condition of the pupils of our popular schools. An incomplete and inadequate instruction may be an evil, or at least may be without real utility; whilst any degree of development given to the natural sentiments and dispositions never can be so; for efforts made in this direction, even though not crowned with complete success, must be always useful.'

We all readily recognise the truth of the distinction between education and instruction as a matter of theory, but it is to be feared that many of us, perhaps unwittingly, stop short when we come to practice. We direct our attention too exclusively to results which can be assayed by the direct test of examination, and are apt to neglect that inward fashioning and strengthening of the mind and the moral nature, the results of which are in most cases slow to show themselves and difficult to recognise, and whose fruits are hardly likely to arrive at any perfection until the pupil has passed beyond the teacher's control. Few persons who are not teachers seem at all to recognise the steadiness of purpose, the unswerving adherence to duty, the patience and the faith which such labour demands; and all honour is due to those teachers who, as far as their skill and opportunities go, endeavour steadfastly to carry out this higher side of their work, content to wait for the results to show themselves in the heightened usefulness and upright lives of their pupils in the years to come.

[1] Quoted from passages translated in Curr e's *Com. School Education.*

PART II.

ORGANISATION.[1]

CHAPTER I.

SYSTEMS OF ORGANISATION.

THE particular scheme of organisation adopted will of course differ in many of the details with the varying conditions of the schools; still in their larger and more important features we shall find at any period of school history a large amount of similarity existing between certain plans. If we trace the organisation of schools downward to the present time, we shall become aware of certain well-marked varieties or *types* of arrangement, which were in their time very widely adopted. The most distinguishing feature, perhaps, and the one which seems to serve best as a test of classification is the mode of employing the teaching power. Applying this test to the schools of the past, as well as of the present, we find many in which the instruction given by more or less qualified teachers was directed to *one* boy at a time, the rest being otherwise employed, and we may conveniently speak of all such schools as adopting an *individual* arrangement of work. During the earlier part of

[1] In the following sections I am indebted for many useful facts and suggestions to a series of lectures delivered by the Rev. J. Long in 1866.

this century we find nearly all schools for the poorer classes in England, and many on the continent, employing one portion of the pupils to teach the others, and this scheme we may conveniently denominate the *mutual* system. As the mutual plan fell into disfavour, the method of grouping the pupils into large classes for simultaneous teaching under an adult, in some cases with other special features, was tried in many schools, both on the continent and in the United Kingdom. This system of arrangement may perhaps be best named the *collective*.

These form the three most distinctive schemes, but many others have at various times been adopted, combining various characteristics of those just noted, and in some cases with sufficient peculiarities to merit attention as distinct plans. These may conveniently be grouped under the head of *mixed* systems.

1. *THE INDIVIDUAL SYSTEM.*

The older schools, whether in connection with monasteries or cathedrals, whether grammar or charity schools, seem mostly to have been organised pretty much in the same way, and to have adopted the individual mode of employing the teaching power. Even far into this century when schools for the poor had arisen in all directions, and were adopting a different method, the *endowed* schools clung to their traditional practice. In some cases zeal for reform was stirred up, and inquiry started as to new and improved plans of work, but for the most part the abandonment of old arrangements and old methods of teaching was a very slow process, and is not com-

pleted even at the present time. France seems to have clung much longer to the plan than some of her neighbours, though a few schools organised on the individual plan lingered late, even in the heart of Prussia. In 1843 there were still 5,844 primary schools in France conducted in this way.

A. *Characteristic Features.*

1. The master conducted and taught the whole school himself, if of moderate size, or a division where the school was too large for single management.

2. He remained at his desk, or rostrum, and called up the pupils, one by one, to repeat the lesson learned, or to receive any help or explanation needed. Much time was frequently taken up in the examination of home work. The teaching or questioning was directed to each pupil alone, the rest of the children not participating in any way in the work. In time a modification was introduced in most cases, a whole class being called up and the pupils taken in turn. Even here, however, there was no 'class teaching,' as we understand the term.

3. For the ordinary work the boys were seated in desks, each having a particular place either in order of merit or arbitrarily assigned to him, and working quite independently of his fellows.

4. The great prominence given to memorising of work, often without the slightest accompanying explanation, was at all times a marked element of system.

5. No use was ever made of the black-board, and there was in almost all instances an entire absence of apparatus.

B. *Advantages.*

1. As the teacher directed his *instruction* to one boy at a time, this could be exactly suited to his requirements and capability; attention could be concentrated upon the exact difficulty in hand; unnecessary explanation could be avoided; and while the teaching lasted, the boy could be made to do his utmost.

2. With respect to the *discipline* the teacher could, so far as individual shortcomings were concerned, precisely suit his exactions and punishments to the habits, temper, and intelligence of the individual.

3. With a good teacher the work done by the boy was thorough and real *as far as it went.*

4. The system favoured the formation of habits of self-reliance and independent effort, patient perseverance, and courageous attack of difficulties. The boy was compelled to depend largely upon himself, and to appeal to the teacher only in case of emergency. This was so far a valuable training, not only for school but for after-life. It made boys manly, it accustomed them to the use of their own strength, and it fostered the growth of originality and decision of character, of thought, and of speech. There was an entire absence of the dead level of tone and effort so common in schools now.

5. Lastly, as the boy was accustomed to work much by himself there was little difficulty in the way of his doing a large share of home lessons. These could be proportioned to the boy's power, and the chances of escape were small.

c. *Defects.*

1. Each influx of scholars made the work increasingly difficult, so that the more popular and well attended a school became, beyond a certain point, the less likely was it to be efficient in the way of instruction, and the more unsatisfactory the character of its discipline. The teacher had less and less time to give to each pupil, and less to spare to general supervision, so that the thoroughness of the work done by the school was in inverse proportion to the extent of the school's usefulness. Small schools, or the employment of ushers, was a necessity. The system was therefore an expensive one and ill suited to 'schools for the people.'

2. The master's time, strength, and talents were not economised. A large portion of his time was taken up in the merely mechanical work of hearing tasks. This was not only uninteresting, but added much to the drudgery. Often the same difficulty had to be solved, the same mistake corrected, the same explanation given, over and over again to different boys, where with class teaching once would have sufficed; and this seems to have obtained not only in England, but in France and other countries of the continent. In addition also to this waste of labour, the distractions were numerous and wearying; pupils coming 'to inquire a word they cannot make out, to complain of a neighbour, to crave leave out, to ask what they are to do next, to show a copy or cast an account, or beg a new sum to work,' and so on until school became a place of torment.

3. As so large a portion of time and labour was spent in getting up tasks, and the master's attention was much occupied with individuals, little useful supervision was exercised over the rest, who, being left largely to their own devices, trifled, played tricks and underhand games, were ever on the watch for opportunities of mischief, and in a word wasted much valuable time.

4. To prevent this a rigid system of harsh punishments was carried out. The insubordination 'was kept down by a very free and frequent use of the lash.' How severe the discipline was in some cases may be gathered from Jean Paul Richter's account of the punishments given by a Suabian schoolmaster.[1] Small faults and breaches of minor school rules (such as talking), not immoral in themselves, were magnified into little less than crimes, and the pupils' notions of right and wrong thereby confused. The discipline was merely the result of personal authority, little or no sympathy with right was aroused, or respect for law inculcated. The temporary absence of the master was generally the signal for a scene of riot and confusion. Speaking of the French schools, Willm says, 'There generally existed between the instructor and his pretended pupils the same relation and sympathy as amongst a gang of rebellious slaves and their overseer; with but few exceptions, both master and scholars sighed for the moment when the labour of each should end. On escaping from school, the greater part of the children, shaking off the dust of the blows and lessons they had received, rushed back in some measure to a state of nature and liberty.'

5. In class teaching one secret of success is to

[1] See case quoted, p. 359.

make the quick and intelligent boys a means of benefiting the rest; even their mistakes are often useful. Stimulated by their example and success, the dull ones put forth their best efforts, and frequently astonish even themselves. The individual plan forfeited all gain of this kind, and there was an entire absence of that spirit of class emulation which a good teacher knows how to make the most of. The system, in fact, favoured those who were strong, quick, and industriously inclined, but depressed and disheartened the weak and slow.

6. The dulness, weariness, and want of spirit and variety in the work were very marked; and except while saying lessons, there was no change of posture or of place. To-day was but as yesterday, to-morrow like to-day; it was one dull, heavy round of routine.

II. *THE MUTUAL OR MONITORIAL SYSTEM.*

Probably no more violent educational controversy ever prevailed than that between the partisans of Bell and of Lancaster at the commencement of the present century. Both these men claimed to have discovered a new method of education, whereby the whole of the teaching could be accomplished by the boys mutually assisting each other. Both may have been led to their plans by accident or experience, but the principle was by no means new, and might readily have occurred to any teacher who gave any thought to the matter.

Lycurgus seems, according to Plutarch, to have employed it in the education of the Spartan boys, and one may gather from the Cyropædia that a somewhat similar practice obtained among the ancient Persians. Pietro della Valle, travelling in the East in 1623, mentions among the customs of some

Oriental nations the employment of some children to teach others as an old device. Comenius (about 1642) suggested the arrangement of boys in troops, often called *decuriæ*, and the appointment over them of some of their fellows as captains or *decuriones*, as he names them, to check exercises, to report to the master, and to assist in teaching.[1] In France Herbault employed mutual teaching in his school for the destitute, from 1747 to his death; and it was also introduced in 1780 by Chevalier Paulet into an institution, for orphans and others, founded by him. In 1798 Pestalozzi made use of some of the poor children he had gathered together at Stanz to assist in the teaching of their comrades, but rather for its moral effect in arousing sympathy for others than for its value as a teaching device.

It was in 1791 that Dr. Bell first made use of the plan in India, but his scheme was not published in England till 1797; and though introduced into St. Botolph's Schools, Aldgate, in the next year, it attracted little attention until it was taken up in a modified form by Joseph Lancaster. The latter, though he afterwards claimed the merit of discovery, acknowledged his indebtedness to Bell in several particulars, and was certainly after him in point of time.

As we have seen, the principle was an old one, and had no doubt been frequently the outcome of necessity. Bell and Lancaster, however, made use of it in a new way and with numerous novel accessories. Previous educators had suggested or tried its employment as a makeshift, an occasional device, a *supplementary* plan. Here it was worked up into a system, perfect and complete in itself, including all that was necessary to the education of the young, and intended to be employed exclusively.

Lancaster's zealous and successful management of his school in the Boro' Road made it exceedingly popular, and

[1] See Laurie's *Comenius* (Kegan Paul, Trench, & Co.), pp. 99 and 101.

rapidly attracted the attention of the public to the plan upon which it was worked. It was said 1,000 children could be taught by one master, and this with little expense. The plan seemed the solution of the whole question of the education of the poor, the greatest enthusiasm was excited and rapidly extended, not only in England but throughout Europe.

Bell and Lancaster were at first inclined to be friendly, but were soon set against each other by the action of a well-meaning but somewhat bigoted and misguided lady—Mrs. Trimmer. In a short time the whole country was ablaze with a controversy which was at bottom in a great measure of a religious character. The Church party ranged itself on the side of Bell, the Dissenters supported Lancaster, and for some time there raged a furious party warfare.

The Madras system, as Bell called his scheme, continued to make steady progress; and many schools were also founded on the model of its rival. Lancaster's pecuniary affairs becoming involved at the Boro' Road there seemed some prospect of the collapse of the school, when a committee of gentlemen took the management into their hands, and formed themselves into the *Royal Lancasterian Institution* in 1808. This led the friends of Bell and the Church to establish a corresponding *Metropolitan Society*. In 1811 the latter was transformed into the *National Society*, and in 1814 the former became the *British and Foreign School Society* Schools were rapidly founded in connection with both societies, and the system in one or other of its forms shortly spread all over the country.

In some quarters the artificiality of the teaching as generally carried on soon became recognised, and in 1813 the *Edinburgh Sessional School* was started. This in its main features was patterned on Bell's scheme, but commenced with the avowed aim of cultivating 'the understandings of the pupils,' and of treating them 'as intellectual and not as merely mechanical beings.' The school under Mr. Wood's management very soon became a great success, and many improvements were introduced. Some little time

too, before the foundation of this school, Professor Pillans—one of the most enthusiastic, powerful, and enlightened advocates of the employment of monitors—introduced the plan in a modified form into the Rector's class in the High School of Edinburgh, and gradually extended it to the whole school with the most marked and satisfactory results. Like Mr. Wood Professor Pillans laid great stress on the cultivation of the intelligence. These two cases showed distinctly how much depended upon the zeal and intelligence of the person who superintended the working of the scheme.

Jeremy Bentham also interested himself greatly in the 'new instruction scheme,' and in his 'Chrestomathia,' published in 1816, sketched out a plan for a higher school on Bell's system, and laid down the principles which he considered should guide it.

Scotland had an organised scheme of education of its own more than a century old, and hence, except in a few well-marked instances, the system was coldly received in that country. It met with more success, however, in Ireland, and in 1833 was introduced into the Dublin Model Schools. In America it was at first eagerly taken up, especially in New York, where it continued to prevail for fifty years. It was also tried in many other parts of the States, but was soon condemned by the New England educationists as unsatisfactory. The plan had an early trial in Holland, but was, after some experience of its working, condemned in no measured terms, *as a system*; and in Germany, though it was at first taken up with great warmth, it was soon discarded as a failure. Victor Cousin says, in 1836, that he had not met with a single schoolmaster in Germany who was favourable to the system; and he was assured by Van den Ende that he would not find at that time a single school in Holland employing the method. In France it obtained some footing, and was at first patronised by Louis Philippe. An attempt was even made to introduce it into some of the French colonies. It was, however, condemned by Cousin; and after 1835 it seems to have rapidly

declined, until at last it was declared by the French Government to be 'the worst of all methods.'

In Switzerland the monitorial system had the fostering care of the enlightened and judicious Père Girard, and long continued useful. It was first introduced into Copenhagen in 1819, and in 1822 was recommended for introduction into all the elementary schools of Denmark. It was at first much praised, and though strongly condemned by Diesterweg on his visit in 1836 it has continued in use in some of the schools, with many modifications and improvements, up to the present time. In 1824 a new School Order provided for the introduction of the Lancasterian system into Sweden, and in 1831 there are said to have been 1,800 schools conducted on this plan. Russia, Spain, and Sardinia—even Naples, Tuscany, and Sicily—gave it a trial ; but it failed to accomplish what was hoped, and has long fallen into disuse almost everywhere.

No system was ever so extravagantly and absurdly praised, no discoverers ever perhaps made such outrageous and ridiculous pretensions ; and probably no plan ever aroused greater interest, gave so much impetus to the work of education, so rapidly degenerated into a cold lifeless formalism, or died out more completely. It made an admirable show, it satisfied visitors, and deceived even its early promoters as to the value of the work done. But, at the same time, in some hands it certainly did succeed in doing much good of its kind, and boys from the best schools were much sought after to fill responsible situations.

The plan bore a variety of names. By Bell it was called the *Madras system*, from its employment of boys to teach each other it was termed the *Mutual system*, and perhaps most frequently of all from its monitors the *Monitorial system*. From its founders one variety was called the *Bell system*, the other the

Lancasterian system; and these when taken up by the two societies came to be generally termed the *National* and the *British* systems. A 'national' school, in its technical sense, was, therefore, one in connection with the National Society; and in the same way a 'British' school was one organised under the auspices of the British and Foreign School Society.

Under the supervision of these two societies the mutual system remained in vogue in England for many years. Its cheapness was a great attraction, and it at last became, in the minds of many of the promoters of education, identified with their idea of schools. When, too, expectations have been sanguine, people are in general very unwilling to be undeceived. But, as Government grants came to be given, and the financial difficulty was no longer the same powerful drawback to improvement it had been, the defects of the plan attracted more attention; the suggestion of the Pupil Teacher system showed the way to better things, and the monitorial system was at last rapidly given up after having been, in England, the great educational feature of the first half of this century.

The system is deserving of careful study from many points of view; more especially as having been the forerunner of the Pupil Teacher system, which was but a development of it, and which may be looked upon as emphatically the *English system*. The student may also glean from the successes and failures of the mutual plan, and from the details of its arrangements, many valuable hints whose usefulness is by no means yet expended.

Dr. Andrew Bell,[1] the son of Alexander Bell, a barber, was born at St. Andrews in 1753. After some very unpleasant school experiences, he matriculated at the Univer-

[1] See Meiklejohn's *An old Educational Reformer*, and Southey's *Life of Bell*.

sity of his native place in 1769. Here he made good progress, his favourite studies being Natural Philosophy and Mathematics. After seven years in America as a private tutor he returned to England, was ordained in 1784, and in 1787 sailed for India. On his arrival in Madras he was appointed chaplain to a European regiment, and afterwards to the army. Several other offices were added, and part of his time Bell spent in lecturing. He is said to have been the first man who ever made ice in India. He accepted the post of superintendent of the Military Male Orphan Asylum, (the duties of which he performed gratuitously), and here tried his celebrated experiment. A master having refused to teach the alphabet by means of writing in sand, Bell employed a boy named John Frisken, and the plan succeeded so well that very soon the whole school was taught by monitors. Bell's health failing he returned to England in 1797; he had always a wonderful faculty for amassing money, and brought with him close upon 30,000*l.* The next year he published his 'Report on the Madras System,' but although introduced into several schools it at first made little progress. For some years he held the rectory of Swanage, in Dorsetshire, and in 1808 was presented with the Mastership of Sherburn Hospital. The great controversy with Lancaster soon brought 'the system' into notoriety, and after the formation of the National Society a central school was started at Holborn Hill, but soon removed to Baldwin's Gardens. Bell became a kind of organising inspector for the society, and continued for many years to give much time to the founding of schools on his plan, and to its extension abroad.

In 1816 he made a tour on the Continent, and met Pestalozzi at Yverdun. In 1818 he was presented to a stall in Hereford Cathedral, which was exchanged next year for one in Westminster Abbey. Bell died in 1832, after much worry and exercise of mind as to what he should do with his money, amounting to 120,000*l.*, half of which he left to St. Andrews, and the remainder to various educational objects.

He was a strong-willed, enthusiastic, boastful, and narrow-minded man ; he was able in business, and parsimonious to a degree ; he was filled beyond measure with conceit over his 'system,' and ever parading it as a panacea for all educational ills. He insisted upon its being swallowed as a whole, and any departure from it or improvement was regarded by him as heretical. He was arrogant and overbearing to teachers, by whom he was much disliked ; but he must have had a large amount of good in him, for he made many firm friends, and was loved by little children to whom he was always attractive. His works are wanting in clearness, filled with wearisome repetitions, and form the very driest of reading.

Joseph Lancaster [1] was the son of a soldier who had seen service in the American war, and was born in 1778, in Southwark. Moved by Clarkson's 'Essay on the Slave Trade,' he ran away from home at the age of fourteen with the idea of proceeding to Jamaica to teach the blacks to read the Bible. He was sent back, however, by the captain of the vessel, and at sixteen became a Quaker. Four years later, stirred by the educational condition of the poor around his home, he obtained a room from his father, at his house in the Boro' Road, and started a small school. He sometimes even provided the poorer children with dinner gratis. He possessed great power of influencing and controlling children, and his school became so successful as to render the teaching a very difficult matter. He now adopted the 'mutual' device, and in 1801, by the aid of some benevolent subscribers, moved to larger premises on the site of the present Boro' Road Training College, and opposite his first school. Many friends interested themselves in his work, especially the Duke of Bedford and Lord Somerville, and his school rapidly became celebrated. In 1805 he was honoured by an audience of George III., who expressed himself much pleased with the work. He also published his 'Improvements in Education.'

[1] See Leitch's *Practical Educationists*, and *Life of Lancaster*, by Corston.

Lancaster, however, seems to have had no capacity for managing money, and in 1808, as previously noted, the friends who formed themselves into the Royal Lancasterian Institution took the control of the Boro' Road school into their hands. He now spent much time in lecturing on his system through the country and aiding the formation of schools on his plan. At length he quarrelled with his friends at the Boro' Road over his reckless expenditure of money, and in 1812 withdrew himself to a small private school at Tooting. The enterprise failed, however, his difficulties and his debts increased, and he finally became insolvent.

In 1818 he emigrated to America. He was well received, and went about lecturing and teaching. In 1829 he visited Canada, and received several Government grants for educational purposes. But his want of business capacity clung to him, and these later years seem to have been mostly sad. A small annuity was at last purchased for him, and he died in New York, Oct. 1838; it is said from the effects of an accident in the streets.

He was visionary, eccentric, irritable, restive under control, and, like Bell, filled with the idea that his plan provided the only scheme needed for the education of all future ages. That he was a simple, benevolent, right-meaning, earnest man is also clear; but he seems to have lacked even ordinary business prudence, and passed most of his time in debt.

A. *Characteristic Features.*

1. The essential feature of the mutual system was of course the division of the children into a number of separate parts, and the instruction of each of these by means of its most advanced members or of those chosen from some higher section. These scholar-teachers were changed from time to time, and spent part of their time in teaching and part in learning. This certainly promised to be a great improvement on

the 'individual' plan. 'Instead,' says Professor Pillans, 'of one great and almost overwhelming current being directed at long intervals on a limited portion of soil, while the rest is left dry, it is conveyed and circulated in smaller but more fertilising streams, numerous enough to keep the entire surface at all times in the most wholesome and productive state.'

2. The graduated arrangement of officers was at first marked by much elaboration. Bell distinguished his helpers as tutors, assistants, teachers, ushers, and sub-ushers; Lancaster had head monitors, monitors of order, monitors of drafts, and inspectors. Both groups consisted really of two kinds—(1) scholar-teachers, (2) order-keepers. When the plans settled down into regular working order *two* boys were placed to each of Bell's classes—one to teach, and the other to look after attention, behaviour, &c.; while *one* monitor alone was responsible for the teaching and management of each of Lancaster's small drafts. Bell preferred the *best* boys—Lancaster thought it often advisable to employ the *mischievous*.

3. The master's peculiar business was general inspection and direction. It was his duty to arrange work, give instructions how to proceed, solve difficulties examine the classes, &c. With Bell he was simply a kind of educational engine-driver; his influence was to be felt through the monitors. 'From his place,' says the doctor, 'he overlooks the whole school and gives life and motion to every member of it. He inspects the classes one by one, and is occupied wherever there is most occasion for his services, and where they will best tell.' 'It is his chief business to see that others work rather than work himself.' This was early felt to be a great mistake, and in the

Edinburgh Sessional School it was insisted that the master should 'seldom or never be found in his desk, but always on the floor among his pupils, and almost always in the act of teaching.' It was always held too by the most enlightened advocates of the system, that it was an essential part of the master's duty to instruct the monitors out of school hours, and prepare them as far as possible for their work. This was forcibly laid down by Wood, Pillans, and Père Girard.[1]

4. A large use was made of promotion and degradation, praise and blame, rewards, and drill; and much weight was attached to the principle of emulation, variety of work, a good public opinion, and *esprit de corps*. Place-taking was a prominent feature in both varieties of the system. 'The first and grand law of the new school is,' writes Bell, 'that every scholar, by a perpetual and generous competition with his fellows, finds for himself his level, and increasingly rises and falls in his place in the class, and in the ranks of the school, according to his relative attainments.' Both Bell and Lancaster disliked flogging, and did all they could to abolish it. Bell would depend largely upon *deprivation*, Lancaster on *ridicule*; the punishments, however, of the latter were often of the most grotesque and objectionable kind—wooden logs, shackles, suspension from the ceiling in sacks or baskets, the 'caravan,' the 'bashaw of three tails,' decoration with matches or ballads, labels of disgrace, &c. Bell insisted upon the careful keeping

[1] In 1845 the teachers had come generally to recognise that *teaching* was an essential part of their work, and the Rev. F. C. Cook reports, '*Now* teachers are universally anxious to convince inquirers that they are constantly engaged in the work of instruction, in hearing the children read, or in questioning them on their progress, and that they take the work as much as possible out of the hands of the monitors.'

of a daily comparative proficiency register, with a weekly summary, and a tabulated statement entered monthly in another register, which in his fanciful way he called a 'Paidometer.' He also advised a register of offences, or 'black-book.' Lancaster had an elaborate scheme of medals, orders of merit, badges, tickets, &c. He made a very excessive use of rewards. 'It is no unusual thing,' he says, 'with me, to deliver one or two hundred prizes at the same time.'[1]

5. Both propounders thought the rectangular shape best for a schoolroom, and both had a raised platform from which the master could overlook the work. The arrangement of the room, however, was very different. Bell's schools had a single desk running round the sides, at which the boys sat facing the wall, the floor being portioned out into hollow squares. Half the children were occupied with the same work at the same time. In the Lancasterian schools the desks were arranged parallel down the middle of the school, the boys facing the master's platform, while gangways and spaces for semicircles (called by Lancaster 'reading stations') were left round the walls. All the boys were put to similar work at once.

6. Bell's followers preferred, with the doctor, large classes, so long as they were manageable—under suitable circumstances of thirty to thirty-six children. The advantages claimed were—fewer monitors were needed, which gave greater choice; those could be selected who were best fitted for the posts; more spirit, interest, and animation were infused into the teaching; and there was much less uproar. Lancaster's disciples contended for drafts of not more than nine or ten. This arrangement, it was urged,

[1] See *Improvements in Education.*

gave each child a greatly increased amount of practice, rendered control by the monitor easier, and afforded a more graduated classification ; but at the same time it allowed less variety of work and increased the noise.

7. Great importance was attached to what has been called the 'perpetual exercise principle,' and this was certainly one of the best features of the system. Both advocates felt that the constant employment of the children was an essential condition of success, and laid much stress upon keeping up the attention without weariness. The pupils were to do everything for themselves ; no time was to be allowed them for mischief ; and the lessons were to be definite, within their powers, gradually progressive, short, and repeated till thoroughly known.

8. In the national schools distinctive religious teaching was given, in accordance with the tenets of the Church of England ; in the British schools the Bible was read without note or comment, though this has been frequently modified. One of the fundamental rules of the British and Foreign School Society was that their schools should 'be open to the children of all denominations without distinction, and that no catechism peculiar to any religious sect should be taught in them.'

9. Bell advocated the employment of what Bentham calls the 'scholar-jury principle,' that is, of trying a boy for grave offences, recorded in the black-book, by a jury of his peers. He says he always found it work well.

B. *Advantages.*

1. The constant active and cheerful employment of the scholars reduced to them the tedium of school

work: the idleness of the old system vanished; the excitement and emulation gave an interest to employment which prevented fatigue; and they soon gained a liking for the work, which predisposed them to regular attendance, and placed the acquisition of knowledge in a pleasant light.

2. It promoted habits of industry, regular work, attention, and quick and accurate observation, in the children; it disciplined them to order and prompt obedience; it furnished a rapid and certain means of detecting shortcoming or wrong-doing; it very greatly diminished the necessity for punishment, and afforded the means of establishing a good public opinion in schools.

3. It distributed, simplified, and graduated the work; it gave the child a far greater amount of practice than was before possible; it varied his employments, and recognised the necessity of change of posture and of place; it expedited the process of learning all that was considered necessary in the schools for the poor, and secured instruction for large numbers of children who otherwise would have been neglected.

4. It relieved the master from the strain, worry, and disgust consequent upon the attempt to keep a large number of children employed unaided. It reduced the irksomeness of school keeping—the drudgery of hearing tasks, and the monotony of teaching the mere rudiments; it left him free to give his attention more particularly to the advanced boys, where his teaching would best tell; and it tended to prevent that lack of cheerfulness, that irritability and want of evenness of temper, which act so prejudicially on a school.

5. The economy with which the work could be carried on cheapened education, and enabled it to be placed far more generally within the reach of the poorer classes. Large schools became possible, one master being able to manage successfully ten times as many children as before. Increase, up to a certain point, in the number of scholars made little difference to the efficiency of the work.

6. Many intelligent and observant educators have borne witness to the fact, that *in certain particulars* monitors after some little practice are better teachers than adults. By a keen intellectual sympathy they recognise how the child's mind is working, and thus seize at once upon the nature of an opposing difficulty; they are often more fertile in expedients, and more successful in suiting their modes of expression to the understanding of the pupil; and lastly, they are less liable than an older teacher to be irritated by the slowness or stupidity of the scholar.

7. It was also claimed that by teaching what they knew the monitors fixed it more firmly in their own minds, and were stimulated to know more; that the system afforded them a valuable training in carefulness, judgment, decision, steadiness, helpfulness, and general trustworthiness; that they were more amenable to discipline, more tractable and painstaking, more easily moulded to suit the master's ways and plans, and much less liable to feel the work a drudgery, than hired assistants.

8. The monitorial scheme led to the recognition of the necessity of systematising school work, and it aroused discussion and set men's minds working upon the subject of education.

c. *Defects.*

1. Perhaps the most serious defect of the mutual plan was the automaton-like nature, the artificiality and often superficiality, of the work—the absence of intellectual training, the inordinate love of system and elaboration, and the tendency to overrate word knowledge or mere mechanical dexterity. It was a scheme of employment rather than of education, and lent itself very readily to lifeless routine and vain repetition. The range of subjects was narrow, and many of the lessons were mere exercises in memorising, or blind application of rules. The outward show of work was a source of delusion as to the value and amount of instruction, both to the teacher and to the parents. Non-intelligent imitation took the place of useful self-effort, and it was found that the children very rapidly forgot what they had acquired, even their reading.

2. The system gave numerous opportunities for abuse; and though many of the faults were not inherent, they were scarcely separable from the working of the plan under average conditions. The mischievous idea that the master was simply to see the teaching done robbed his work and influence of more than half their value. It went against the principle 'know your scholars.' No provision was made for the master knowing anything of individuals first hand, but only by report; of their real characters or nature he knew nothing. The complete unsuitability of many of the masters for their work and their defective understanding of its requirements, their satisfaction with mere external trappings, their lack of insight and of proper supervision and control, proved a fruitful source of

failure, and probably led as much as anything to the disgrace and downfall of the scheme. No doubt where the teacher was zealous, conscientious, and intelligent, and above the average in judgment and inventive skill, the system answered its purpose; but with average teachers, performing their work in a perfunctory spirit, it rapidly fell away into all sorts of sham and weakness.

3. Another grave objection lay in the very numerous train of evils, frequently, if not generally, found to be present in connection with the monitors; their incompetency and want of preparation, the lack of unity and connection in their work, their petty tyranny, abuse of power, acceptance of bribes, tale-bearing, &c. Dr. Biber speaks of it as 'a system calculated to foster at the same time two of the basest feelings of the human bosom—despotism and servility.' Even under the most favourable circumstances the work of the monitors was fagging and monotonous, and there was a want of moral weight in their control. The position was an exceedingly trying one for them, and a considerable amount of caprice and favouritism could scarcely fail to be present.

4. It was often impossible to find monitors whose faithfulness, industry, and probity could be relied upon; and who possessed sufficient skill to be useful as teachers. Too much also was generally expected from them, and no balance was maintained between their work as teachers and that as learners. A good school might be maintained in fair efficiency, but when it had once deteriorated, the difficulties of improvement were vastly increased. An inefficient school, or one just started, with undisciplined ignorant children, furnished no monitors fit for the work, and hence was little likely

to progress without the most unwearying efforts on the part of the master. Girls, too, were frequently found to be unsuited to the work, and in some cases boys had to be employed as monitors in girls' schools.

5. The system was never a popular one with the great body of parents. On the one hand, they failed to see that the work as a monitor did the boy any good, and hence looked upon it as waste time; on the other, they objected to their children being taught by other children, as though the master were neglecting his duties.

6. Lastly, it was urged that the inseparable noise and confusion—'the confused uproar of exclamation and motley medley of vociferations,' as it has been called—was a great source of distraction, and did much to destroy any useful study.

III. *COLLECTIVE SYSTEMS.*

By the term 'collective' is meant the gathering of the children into large groups, and the direction of the instruction by an adult or trained teacher to the whole group, every member of which took part in the work at the same time. The most marked varieties of this plan are the 'Training system,' the so-called 'Simultaneous system,' and the 'German class-room system.'

(1) The Training System.

This system was originated and established by David Stow, who did not claim for it so much the merit of a new discovery, as of a successful attempt to combine the good features from other plans and profit by the lessons of experience they taught.

By Stow himself it was called the *Training system*, from the place of its first employment it became known as the *Glasgow system*, from its insistence on the use of the gallery it has often been spoken of as the *Gallery system*, and from its originator it is sometimes denominated the *Stow system*. It was adopted in many Scotch schools, and tried in scattered instances in America and on the continent. In nearly all the numerous schools of the Wesleyans, too, it was definitely followed in all its main features.

After 1839 the Wesleyan schools were modelled upon Stow's scheme, and in essential particulars they remain so still. From the date just mentioned, until the opening of the Wesleyan Training College in 1851, all the Wesleyan teachers were trained at the Glasgow Free Church Normal College, under the management of Stow.

The effects of the system, however, are not to be judged by the extent of its employment as a whole, or by the frequent adoption of its external arrangements; but from the fact that all succeeding plans have been largely modified by it, and that many of their best features are but adaptations from it.

Its influence upon true education has been a wholesome and a lasting one. It did valuable service in calling attention to the need of something further than the means of giving mere information—the necessity of training or cultivating both the intellectual and the moral nature of the child. No doubt to it also belongs the idea of *graded schools*, which have been so extensively adopted in America, and have recently begun to multiply in England.

David Stow[1] was born in 1793 at Paisley, and received his early education in the Grammar School of that town. In 1811 he entered a large business house in Glasgow.

[1] See Leitch's *Practical Educationists.*

Like Lancaster and Raikes, he was moved by the vice and ignorance of the poor he saw daily around him, and this led him to devote much of his spare time to bettering their condition. He at first established a small sabbath school in a room in the Saltmarket, and sought out the children in their homes. His discouragements at first were numerous, but his patience and perseverance were great, and he continued the work with many vicissitudes for ten years.

During this time he was gradually trying experiments and evolving many of the features of his system of training. In 1826, feeling that the sabbath school influence was destroyed by the week-day evils, he established a 'week-day normal training school' for 100 scholars under six years of age, as a model for others. Three years later another school was added for children from six to fourteen, with class rooms for normal students who wished to learn the system. The training of the teachers was always strongly insisted upon by Stow, and no doubt we owe much to him in this direction. The Glasgow Educational Society interested itself greatly in his work, and many means were taken to extend the knowledge of his scheme; among others a travelling model class with master and mistress to exemplify its working. The most important result, however, of the interest aroused was the foundation of the Normal School for training teachers in Dundas Vale, Glasgow. It was finished in 1838, the schools previously established removed to it, and the system carried on under the guidance and control of Stow himself. Here he introduced the plan of 'criticism lessons,' now so common in all training colleges. In 1848 he was compelled to resign the Dundas Vale school to the General Assembly of the Church of Scotland; and teachers, students, and children removed to the Glasgow Free Church Normal School in Cowcaddens. Over this institution Stow continued to preside up to the time of his death, which took place in 1864. The various devices of teaching and training on which Stow insists are fully described in his 'Training System and Normal Seminary.'

A. *Characteristic Features.*

1. Stow insisted strongly and persistently on the influence of the master upon the children being direct and continuous. Where the numbers admitted of it (and the system was intended to apply more particularly to town districts) the children were divided into three departments or *grades*, each with a separate room and teacher—*infants*, from five to seven years of age; *juveniles*, from seven to ten; *seniors*, from ten to thirteen or over. It was felt that more children could be taught together where they were graded, as being more nearly alike in age and progress; but if the group was still too large, the grade could be divided into any requisite number of sections, each with a teacher and room of its own. The use of monitors as teachers was condemned, though they were occasionally employed for merely mechanical labours.

2. It was further thought to be of great advantage for both sexes to work together, and hence all the schools were mixed. 'It is impossible,' says Stow, 'to raise girls intellectually as high without boys as with them; and it is impossible to raise boys morally as high without the presence of girls. The girls morally elevate the boys, and the boys intellectually elevate the girls.'

3. Another feature to which great importance was attached was the recognition of the *sympathy of numbers*, and its employment as an aid. This was called by Stow the oil-spring of the system. By it he seems to mean the force of public opinion among the children, together with a subtle influence arising from

unity of feeling or action, the whole operating through sympathy or imitation to strengthen this or that line of conduct. 'Sympathy,' he says, 'is a principle of our nature which may be directed to good or evil, and is more or less powerful in proportion to the proximity and concentration of numbers. . . . There is a power therefore in numbers not experienced in individual teaching or training; and the playground and gallery conjoined under proper management and superintendence afford the most perfect sympathy.' It acts in a right or wrong direction, 'according as the children are, or are not properly superintended and trained by the master.'

4. The great characteristic, however, towards which all the other features were made to tend, was the very particular attention paid to the distinct and thorough training or education of the whole nature of the child. He was no longer to be a mere learner, but to so partake in the work that every faculty—mental, moral, and physical—might be strengthened by practice. Training meant with Stow actual exercise in the thing required, until it was easily and well performed.

He was exceedingly anxious to raise by means of education what he called the 'sunken' and 'sinking' classes; and, consequently, the central idea of his system was the moral training. Special Bible training lessons were given, as were also moral lessons founded on observations of the children's faults or virtues as exhibited in the playground and the school. Precepts were not discarded; but the actual carrying out of these into practice was considered the essential thing. 'In the moral department,' says the author, 'storing the mind with Scripture texts is teaching or instruction—seeing that the child practically does the things

as they are required in real life, renders the process training.' To train the intellect frequent and special object lessons were given with the aid of various devices to be noted shortly. The body was to be cared for by physical exercises in school, and by the provision of apparatus and the encouragement of games in the playground.

5. As a large number of children were to be taught together, it became very necessary that some means should be adopted whereby the teacher could see every child and every child see him. This led to the use of the large gallery placed at one end of the school, which was considered an indispensable part of the machinery. Here the children received the main part of their instruction, being only occasionally brought down to a few desks on the floor for writing or slate arithmetic.

'The gallery enables the trainer with more regularity and precision to conduct the physical exercises, which are requisite according to the age of the pupils, whereby the attention may be arrested and secured. It enables the master and scholars to fix their eye more easily upon each other while he is presenting an object, or during the process of picturing out any point of a subject, and also while he is deducing the lesson. Every word spoken is more easily heard by all—individual, but more particularly *simultaneous*, answers are more readily obtained—order is promoted, and instant obedience and fixed attention are more certainly secured than when children are placed at desks, on level forms, in semicircles or in squares.'

6. Great stress was also laid upon the use of the playground, or, as Stow calls it, the *uncovered schoolroom*, not only on account of the benefit from the physical exercises undergone, the games and occupations engaged in, but principally because it gave the

master opportunities of watching his little world when it was free from restraint—of learning the true characters and dispositions of the children; and of making his observations, wherever any worthy of remark occurred, the basis of the succeeding gallery lesson. It was considered of the greatest importance that the master should be present in the playground with the children.

'Any case of oppression or dishonesty, or particular act of generosity, or disinterestedness, is on the return to the gallery taken up by the master and thoroughly investigated, and condemned or applauded before the whole of the scholars, or rather simultaneously with the whole of the scholars, they sitting in a sense both as judges and jury.' This connection of the playground and the gallery was held to be of the greatest service.

7. One of the chief agencies made use of in teaching was vivid word-painting or *picturing out.* 'This,' says Stow, 'is a fundamental principle of the system intellectually. . . . Before a child has a thorough understanding of a word or point of a subject, the simple elements of the terms used must be present to the mind's eye; and under this system, whatever the school exercise may be, secular, sacred, or elementary, 'picturing out' ought uniformly to be adopted, both in the broad outlines and in the minuter points of every lesson.'

8. A very extended use was made of simultaneous utterance, both for reading and for answering questions. In connection with this a device much insisted upon was the use of *ellipses.* As in the large proportion of cases the children answered together, the continuous use of ordinary questions was difficult. The pupils having to think of the ideas required, and the words

by which to express them, naturally gave very confused replies, unless the answers required were easy. An ellipsis gave a ready means of extending simultaneous utterance, by supplying the framework of the answer, and leaving the children to fix their attention mainly on the idea required. Ellipses, however, were not to be used alone but to be uniformly mixed with questions.

B. *Advantages.*

1. The system, as framed, was an eminently educative one; no part of the child was to be neglected, and he was to be made as happy as possible. It was the means in many cases of introducing into schools a higher, nobler, and more complete ideal of the work, than was then commonly recognised.

2. Perhaps no single merit could be more justly claimed for the system, or would be more readily allowed, than the very great attention given to moral training, and the general excellence of the disciplinary measures—the earnest endeavour to form good habits in children, to make them feel their responsibility, to equip them for the fulfilment of their duties in life. And this was done without violent measures of any kind. Stow says he made it a rule never to strike, never to expel. The children were always directly under the master's eye and influence, and hence were more easily controlled.

3. A corresponding advantage was the development of the children's intelligence by special lessons arranged for this purpose, and taught by a skilled teacher.

4. The importance attached to the playground—the manifestation of its disciplinary value, as well as

the encouragement given to healthy play—was a distinct gain to education.

5. The use made of the 'sympathy of numbers,' again, was not only the recognition of a principle of far-reaching importance to the teacher, but rendered it clear how it could be employed as an aid of considerable power in the work.

6. Further, the employment of the gallery for oral lessons, the use of ellipses, and the picturing out method, were all valuable additions to the means at the teacher's disposal for rendering the work of the school efficient.

7. Lastly, the system was an economical one, both as to labourers and funds. The teacher's office was magnified above that of a mere instructor, and the necessity for the definite training of the teacher for his work was strongly insisted upon.

c. *Defects.*

1. In order that it might be carried out effectively the system necessitated a complete set of *graded schools*, and this was possible only in town districts, or where combination for school provision was feasible. It was not suited for general adoption in country places. In single schools the children were not well matched either as to age or acquirement, and it was impossible for the teaching to be appropriate to all at the same time. To reach the success claimed for it, it was necessary that all children should have equal power of learning, and be equally regular in attendance; in fact that there should be a uniformity of conditions which did not exist.

2. Another objection of much weight was that the system was too general, that the child's individuality was far too much sunk out of sight—particular needs and difficulties, except in the matter of conduct, being left uncared for. The plan did not recognise the necessity of dealing with children in many departments of their work *one by one.* It assumed that the same treatment was good for all in all things; that every child's mind and heart could be reached by the same means.

3. The system again attached too exclusive a value to the efforts of the teacher, and quite insufficient importance to the work of the scholar. Too much was done for him, and too little by him. The idea of training—so valuable in its way—seems to have run away with the originator of the plan, and made him forget how very necessary it is that this should be associated with a proper proportion of sound information. Where skill rather than knowledge was required—as in reading, writing, and arithmetic—the system to a large extent failed. It was in fact, both in spirit and in teaching expedients, an infant school method. As such it was in many respects excellent, but it was less suited to schools for older children, and its defects were more and more apparent as the age and acquirements of the scholars increased.

4. The use made of simultaneous utterance was excessive. A large number of children on a gallery all answering together was doubtless a striking figure—it made a great show of work, but was frequently very far from being what it seemed. The majority of the pupils, instead of thinking for themselves, listlessly caught up, as it were by a kind of

instinct, what was being said by a few leaders, and chimed in so as to completely deceive those who were not acquainted with the extent to which children can do this, and hence were not on their guard respecting it. The gallery work thus soon became very artificial; it developed a monotonous sing-song tone often in an unnaturally high key, it damped out anything like originality of view, it led the children into certain grooves of thought and expression, and, except in the case of a few interested ones, fostered a habit of intellectual indolence and reliance upon others. It afforded the teacher no chance of discovering how far his teaching had been grasped, what parts it was necessary to repeat, or of what points it was needful to give further explanation.

5. As the methods and devices of teaching were exactly laid down, and very undue weight attached to the carrying out of these in the way proposed, the teacher's skill could expand only in a few definite directions. The work lacked variety, and no room was left to use the thousand and one little expedients which a skilful teacher invents in moments of difficulty, to his own great improvement and the benefit of his scholars. It thus checked discovery, and prevented the growth of that readiness of resource which is of such use to the teacher in almost all circumstances.

(2) The Simultaneous or Class-Room System.

The plan of assembling the scholars in a group, and addressing the instruction to them as a body, must have suggested itself to many educators directly the need was recognised of more teaching than could

be given, in ordinary circumstances, under the individual system. The merit of origination, however, is usually ascribed to Canon Lassalle of Rheims, who in 1680, after founding the Society of the Christian Brothers, imparted to it this method of carrying on school work. Pestalozzi was driven by necessity to the same plan. He says:—

'Being obliged to instruct the children by myself, without any assistance, I learnt the art of teaching a great number together; and, as I had no other means of bringing the instruction before them than that of pronouncing everything to them loudly and distinctly, I was naturally led to the idea of making them draw, write, and work all at the same time.'

The system was early employed in Austria, and soon became general in Holland and Germany. It was adopted also here and there in France from its first introduction. After 1840 it began to extend rapidly, and is now in use in the majority of French schools. It is also employed in many schools in America. The adoption of simultaneous instruction would, of course, naturally lead to corresponding modifications and inventions in the way of organisation, so as to carry on the work in the most satisfactory way. As might be expected, the various schemes of simultaneous organisation all resemble each other in general features, though each local variety has its peculiarities.

In almost all German schools, and in other parts of the continent, the large schoolroom, so common in England, is avoided, and a number of small rooms, grouped together under one roof, are used instead. In many cases, also, in America, though a large room exists, it is divided off for work into separate compartments, by sliding partitions. From this feature the system is now very frequently spoken of as the *class-room system.*

The principal characteristics of the simultaneous system are—classification, founded to a large extent on age, into groups of usually forty or fifty ; a skilled teacher for each group, and wherever possible a separate room also ; the desks arranged in parallel lines facing the teacher, and provided in sufficient quantity to seat all the children. All the pupils of the group receive the same instruction at the same time, act in unison in all movements and exercises, and retain their seats during lesson time.

In *France* the school is usually grouped into three divisions, mainly based upon age ; and any children who are not included within the limits of this classification are placed under the charge of the best pupil in the school. In *Germany* a large amount of uniformity, both of method and arrangement, is insisted upon. There is a very strong feeling against mixed schools. All the teachers are certificated, and all paid fixed salaries. The work is carefully graduated and prescribed by official syllabus ; the time table is fixed and printed, and special lessons are given to train the intelligence. The teaching is usually given from a small platform placed in front of the children. Each desk is, as a rule, made to seat four pupils ; the desks are grouped in lines, and generally seven deep.

The advantages claimed for the plan are the increased amount, better connection, and higher character of the work, from its being conducted by a trained teacher ; the economy with which the skill and labour of the latter are utilised ; the greater animation, both of teacher and pupils ; and the use made of emulation.

The method of instructing children simultaneously was a reform of great moment ; but it has well-marked limits, and when used exclusively, and allowed too

much weight in matters of organisation, it gives rise to various defects. The simultaneous system of organisation, as usually worked, is an expensive one, from the number of teachers required; it is altogether unfitted for small schools; it affords no change of place, and little of posture, for the children; and unless much space is to be wasted, it necessitates an equality of classification, which is in most cases, at least in England, impossible if the children are to be well matched as to attainments.

'Men go hastily to Germany,' says Dr. Rigg, 'and see a German school taught only by adult teachers—a teacher to each separate class. They see or hear besides that a similar plan is in operation in the expensively appointed and efficient schools, which are among the shows of some towns in the United States; and they come to the conclusion that modern science is opposed to the employment of pupil teachers, and requires that only adult teachers should have any charge of children. . . . Where this system succeeds, it is under conditions altogether different from those which belong to the elementary schools of England.'

IV. *MIXED SYSTEMS.*

The systems previously described contain nearly all the special features of organisation employed in schools. Various ways of combining what seemed to be useful characteristics, from some or all of them, have been at different times suggested or tried. Of these mixed systems only two, combining certain elements in a marked way, will be noticed—the Tripartite plan and the Pupil Teacher system.

(1) The Tripartite System.

This was proposed in 1845 by the Rev. Henry Moseley, one of H.M. Inspectors of Schools. The threefold arrangement which gave it its name was suggested to him, he tells us, by the working of the Edinburgh Sessional School. He seems to have realised very clearly what were the strong points of the various systems previously tried, and he endeavoured in his plan to arrange these so as to present a mode of working which should utilise them all. The plan was exceedingly well conceived from a theoretical point of view, but it had its defects, and the difficulties of working it in practice were found to be very great. It was consequently never very widely adopted, though a trial was given to it in many places, amongst others in the Dublin Model Schools, where it is with some modifications still in working, in a few of the schools forming the group. It was thoroughly sound in principle, and served a most useful purpose in turning attention strongly to points which it will ever be necessary to aim at. In describing it we shall let the originator speak largely for himself.[1]

A. *General Characteristics.*

1. As the system of graded schools was out of the question in most places, the next best thing seemed to be to grade the school itself, and let the most difficult and important work of each division be done by a single skilled teacher—the master—by making the sections circulate. This, in connection with the

[1] See *Minutes of Committee of Council*, 1845, p. 249 *et seq.*

idea that an experienced cultivated mind was necessary to educate children, formed the foundation of the plan.

'To *educate* children,' says Mr. Moseley, 'the action of an enlightened teacher upon them is required, with an individual application to each individual mind. There must be the separate contact of the mind of the master with the mind of the child ; the separate study of it ; the separate ministering to its wants, checking its waywardness, propping up, and guiding, and encouraging its first efforts ; building it up and establishing it.' 'The first, then, and essential element of it is the separate room for oral instruction, the devotion of the labours of the head master chiefly to this object (relieved occasionally by the second master or pupil teacher, with whom he exchanges duties), and the throwing of the children in three great divisions, of fifty or sixty, successively into that room for an hour twice a day for the purpose of that instruction. Every other element of the plan admits of modification, but not that. If that feature of it be sacrificed, then the most important results which I contemplate from it will, in a great measure, I conceive, be lost. It is no longer the plan which I recommend, or one from which I anticipate any very decided advantage.' Each child was thus brought for a third of the school time under the personal influence of the master.

2. To facilitate the carrying out of the arrangement the subjects of instruction were grouped into three divisions, thus—

a. 'Those which are properly the subjects of oral instruction.

b. Reading.

c. Writing, slate arithmetic, drawing, committing to memory—being silent occupations.'

3. For these three subjects separate localities were assigned—(1) A separate room, with a gallery, for

oral instruction. (2) Desks arranged in groups for writing, &c. (3) An open floor-space for reading.

To give this threefold division of the room various plans of school buildings were devised. The principal forms—shown by many existing schools where the system has long been abandoned—were the oblong with a gallery room or class room at the end of it, and either forming a continuation or at right angles to it; a longer oblong room across the end of a shorter one, the former divided into two by a curtain; and, less frequently, two parallel rooms connected by a third at right angles to the middle of each. These shapes roughly took the form of certain block letters, and may easily be remembered by the word HILT.

4. Corresponding to these three distinct branches of instruction, it was proposed to form the children into three equal divisions, and on the termination of the morning devotions and the Bible lesson, to let each division pass to one of these localities.

'Calling the divisions, for instance, I., II., III.; Division I. will take its place in the gallery for oral instruction, Division II. at the desks for writing, &c., and Division III. (in subdivisions of from six to ten) upon the floor of the schoolroom for instruction in reading; or in the room set apart for that purpose with a gallery, &c., if it be proposed to adopt the simultaneous method of teaching reading. Now, it will be observed, that there are three hours in the morning and, in summer, three hours in the afternoon devoted to school business. I suppose the above distribution of the school to remain during the first of these hours. At the expiration of that hour a change takes place; that division which was in the gallery receiving oral instruction passes to the desks for practice in writing, &c.; that which was at the desks to the floor of the schoolroom for reading; and that which was reading to the gallery for

examination by the head master in that reading lesson, in which the whole division has been receiving the instruction of the monitors. This arrangement continues during the second hour; and so each division passes in its turn, in the course of the morning, under the personal examination and oral instruction of the master; each is occupied during an hour in writing, slate arithmetic, &c. ; and an hour is devoted by each to mechanical instruction in reading.'

The following time table represents the arrangements described :—

Hours	I.	II.	III.
9 to 10	Oral Instruction	Slate Arithmetic, &c.	Reading
10 to 11	Slate Arithmetic, &c.	Reading	Oral Instruction
11 to 12	Reading	Oral Instruction	Slate Arithmetic, &c.

The school was to be *mixed*, the boys and girls being taught together in the morning; and both a master and a mistress were to be provided. For schools whose average attendance did not exceed 100, this was considered enough. For every additional 25 children it was proposed to employ a pupil-teacher; and if the number exceeded 200, to replace one of these at least by an assistant master.

5. The teachers were to be grouped as follows :—

a. The master.—'In all that requires the independent exercise of judgment and discretion in the business of instruction—in all that involves the sanctions of religion, and considerations of moral responsibility, and thus needs to be presented to the mind of a child with the gravity and the authority which can only be brought to it by the mind of an adult teacher; and in

all that concerns the development of the judgment and intelligence of the child—the direct interference of the master in its education is necessary to any useful result, as well in reference to the youngest child in the school as to the oldest.

The master, however, was not to be constantly occupied in *talking*. He was to examine and hear lessons, and from time to time to require the children to write down abstracts of the lessons he had given.

b. Mistress and Monitors.—The station of the mistress was to be the reading room; the teaching of reading being entrusted to the mistress with the monitors under her care.

For reading, each of the three divisions of the school was to be formed into two sections; one composed of as many of the children who were most backward in their reading as the mistress could herself properly instruct in a single class, the other portion being broken up into drafts of not more than eight children, each placed in charge of a monitor.

'The whole of the children of each of the great divisions is, when in the reading room, to be occupied in reading the same lesson; and the time-table of the schools is to provide that, when the hour allotted to it in the reading room is expired, it shall be transferred to the gallery for oral instruction by the head-master, such oral instruction always commencing with an examination upon the reading lesson which has preceded—first as to the ability of the children to read the lesson accurately; secondly, as to their intelligence of the subject matter of it. If the reading lessons be properly selected, they will frequently serve as the foundation of that oral instruction of the master, which is to follow this examination.'

In the afternoon the girls were to be taught to sew

by the mistress in the reading room, the boys being formed into three divisions, and occupied as in the morning; 'the two divisions employed in oral instruction and writing occupying one of the remaining rooms, and the other being appropriated to reading, under the supervision of the assistant master or the pupil teacher.'

With respect to the use of monitors, Mr. Moseley says, 'I am not prepared to deny that there are certain elements in the business of a school, which, being essentially mechanical in their nature, may, under due supervision and with proper limitations, be conducted on the principle of mutual instruction. Reading, for instance, may, as to its mechanical elements, and with a view to that individual instruction and mechanical practice which it requires, be taught by the aid of monitors—as young even as some of those to whom the whole business of instruction is intrusted in our existing schools—provided that each reading lesson, so given, is checked by a subsequent examination of the master; and that the subdivisions of children placed at any time under the instruction of a single monitor do not exceed eight, or at the most ten, in number.'

c. Pupil Teacher, or Assistant Master.—The pupil teacher or assistant master was to have charge of the writing, practice of arithmetic, drawing, &c., and he was from time to time to relieve the head-master.

B. *Advantages.*

1. The most suitable provision was made for both giving the necessary information and training the intelligence. While use was made of the simultaneous mode of teaching, for subjects to which it was suited, the individual side of the work received due attention:

and each teacher had just that work allotted to him, which he was best fitted to perform.

It is characteristic of this plan, says the author, 'that providing for those technical branches of instruction, which are not only valuable in themselves, but necessary to secure that public opinion of the parents favourable to the school, on which its success must after all depend, it provides further for that oral instruction of a more general kind which aims at results less tangible, indeed, but the highest contemplated in education, and the most valuable; that it extends the benefits of this form of instruction from the highest to the meanest and lowest child, and that it brings to it the master spirit of the school, and all the sanctions with which the authority of the highest office can surround it; that in respect to his own individual part in the labour of teaching, it does not leave the master to the influence of no other motive than his own sense of duty, or that desire for excellence which it is so difficult to preserve in a remote and unobserved school, subject as it is to the antagonism of those prejudices which, lingering in the public mind, too frequently interdict all sympathy in his labours; but that it contemplates a system of instruction in which his labours shall constitute an integral part, and prescribes the subjects which he shall teach himself, and the times when he shall teach them.'

2. The certainty and regularity with which each scholar was brought under the direct influence and teaching of the master was a great gain.

3. It secured relief to the children by the variety of work, of teachers, and by the changes of locality and posture.

4. It arranged for the regular inspection and examination by the master of every subject taught in the school.

5. It provided, for the tedious and difficult task of

teaching to read, the services of an adult teacher (the mistress), who was supposed to employ the assistance of monitors only in respect to those children whom she was unable to teach herself.

6. Lastly, it assured 'to the girls (to whom it is at least as necessary as to the boys) the highest order of instruction' which the school could supply; and it enabled 'the master to employ the services of his wife in the business of the school.'

c. *Defects.*

1. The system took too little account of the strength of the master. The activity both of body and mind necessary to successful oral teaching is of the most exhausting character, and it was found that he was unable to bear the strain of continued effort, of the kind contemplated, for any great length of time.

2. The lack of variety in the work of all the teachers, and the monotony and mechanical nature of it in the case of some, confined as they were, to a very large extent, to one kind of duty, told injuriously on the teaching. Not only did it destroy interest, but it prevented the proper growth of the teacher's power, by restricting his exercise within too narrow limits.

3. The system was not suited to very small or very large schools. In the first case the groups were too small, and the arrangement too expensive; and, in the second, the sections were unmanageably large when placed on the gallery. Many of the existing schools were unable to employ it from the unsuitability of the rooms.

4. In schools, again, the pupils of which varied

very widely with respect to age and acquirements (say from infants to advanced scholars), the three-part classification was insufficient to enable the work to be made suitable for all.

5. It broke that sympathy between teacher and taught, and that continuity of associated work, which act so strongly for good.

(2) The Pupil Teacher or English System.

The pupil teacher scheme was an outgrowth of the monitorial system; an attempt to preserve the best features of the latter, without its evils, and not only insure improvement in the work, but also provide a supply of future masters. It was felt that the monitors, just as they were getting of an age to do really useful work, were withdrawn from the school, and various memorials were addressed to the Committee of Council on this subject. The remedy of apprenticing the monitors—to be then styled pupil teachers—was suggested about 1844.

In 1845 the Rev. F. C. Cook says, in his report, 'I have noted the cases in which pupil teachers are employed, and it appears that they are only found in a few metropolitan parishes. In one school, at Baldwin's Gardens, four youths act in this capacity; in other places but one assists the master.'

The celebrated minutes of 1846[1] established the use of pupil teachers as a system. They might be employed up to one for every twenty-five children in

[1] These minutes initiated the annual grants to elementary schools, and proposed the granting of pensions to masters. The details, however, of the latter were not made known till 1851.

average attendance, in any school under inspection, which had a competent master, and was properly supplied with apparatus and books. They were to be apprenticed to the *master* for five years, commencing after thirteen years of age, the Government paying a fixed stipend for each year of apprenticeship, if the annual examination test was satisfactorily passed. A scheme of study was laid down for each year, and they were to receive daily an hour and a half's instruction from the master, for five days a week. For this instruction the master was to receive 5*l.* per annum for one pupil teacher, 9*l.* for two, 12*l.* for three, and 3*l.* more for each one in addition. At first it was proposed to issue a certificate at the end of apprenticeship, showing that the course had been completed; but this was not found advisable. It was supposed that the majority of those who had completed their time would seek to enter a training college, and exhibitions to them, as Queen's scholars, were granted for this purpose. Opportunity of employment in the Civil Service was also held out, but this proposal was cancelled in 1852, as it was thought it might divert attention from the profession for which the pupil teachers were trained. The system soon became general throughout England, and though modifications have been introduced from time to time, it still remains essentially what it was intended to be.

In the case of large schools, necessitating the employment of a number of pupil teachers, it was found that the proportion of skilled to unskilled labour was too small for the work to be properly performed. To meet this defect various regulations have been made, limiting the number of pupil teachers which may be employed with each master or adult assistant. The pupil teacher must now be turned

fourteen at the time of apprenticeship, and is ordinarily apprenticed for four years; though the period may be shortened to three, or two, provided that the candidates pass the examination for the end of the first or second year respectively, and that the apprenticeship terminates beyond his eighteenth year. The system supplies an excellent means of recruiting the teaching profession, and with the employment of a sufficient number of skilled assistants in large schools to do the higher educative work, may be made a thoroughly efficient one. It would be a mistake to substitute for it the more costly plan of adult assistants only, and employ highly skilled labour in the performance of certain mechanical parts of the teaching—such as the drill work of reading, superintendence of silent work, &c.—which can be effectively performed by even young pupil teachers, and with much less irksomeness than would be felt by the majority of adults.

Many of the objections urged against the plan result from defective carrying out, and are not, as it is at present modified, inherent in the system itself. One of the greatest mistakes is the treatment of the pupil teacher, so far as the work is concerned, as though he were a journeyman and not an *apprentice*. To put a young untrained teacher to a large class, and make him responsible, often without help, and sometimes without guidance, for its *entire teaching*, is not to carry out the system as intended, but to fall into an error which we should do our best to avoid. Is it not to proclaim, either that we have forgotten the instrument we are using, and the needs both of the teacher and the children; or that we fail to recognise what education should be, and have no higher ideal of the child's needs than a certain minimum acquaintance with the rudimentary branches of instruction; and do we not also thereby show ourselves to be blind

to the lessons of experience, and repeat, in a slightly altered form, the most defective feature of the monitorial system ?

No doubt the understaffing of schools (which has rendered the master's share of the work very severe), the necessity of bringing every child up to a certain examination standard, and the direction of the attention of both teachers and managers to the money earning capability of the school by the system of paying grants, have had much to do with this state of things; but it should be remembered that they do not excuse avoidable faults in the teacher's share of the work, and that while we may do all in our power to secure the best conditions of work, it is still our duty in the meantime to do our best under such conditions as exist. Where (the pupil teacher having been properly selected) the fact is recognised that at first he is but a good monitor, and such work is allotted to him as he should be able to perform ; where it is not forgotten that he has to be trained to his business, and the teaching required of him is gradually made of a higher or more difficult kind as his skill increases; where it is realised that every child in the school should, during certain lessons, be brought under the influence either of the master himself, or of a skilled assistant ; we are not likely to hear much of the uselessness of the pupil teacher's work, on the one hand, or of the defective training of the children on the other.

CHAPTER II.

THE SCHOOL AND ITS APPOINTMENTS.

THOUGH the teacher may rarely have his opinion asked concerning the building of a school, and only occasionally have a voice in its fitting up, it is not the less incumbent upon him to know what a good type of school should be, and the proper means of fitting up and furnishing it, so that the work may be facilitated and carried on with the largest measure of success. He may often very considerably modify the arrangements for the better, if he is clear as to what should be aimed at.

We have to consider in connection with this subject,—(1) the size and shape of the rooms, with their general disposition as to each other—large room, class rooms, lobby or entrance room, lavatory, teachers' room, playgrounds covered and uncovered, and the offices in connection with them; (2) the mode of lighting; (3) the warming; (4) the ventilation; (5) the fittings and furniture.

A. *The Size, Shape, and Disposition of the Rooms.*

The size of the room will of course depend upon the expected attendance. The code states that 'the department will endeavour to secure at least 80 cubic

feet of internal space, and eight square feet of internal area, for each unit of average attendance.' The content limit of 80 cubic feet per child is certainly a very low estimate under ordinary conditions, and in most schools is with good reason considerably exceeded.

The site of the school should be convenient with respect to the children's homes; as quiet and retired as possible, and not placed in a disagreeable neighbourhood; should be healthy, well drained, and have as cheerful surroundings as may be; and wherever practicable the building should be isolated from other structures.

Small schools present little difficulty as to planning. Larger ones combining all the rooms required for three separate departments—boys, girls, and infants—are generally grouped in one block of buildings, and require much more careful consideration. The more compact the arrangement, so long as it secures the proper isolation, lighting, connection of rooms in each department, &c., the better. The site of the school building will often very materially modify the grouping, and in some cases the question of cost will be no unimportant factor. The aspect with reference to sun and wind should also be taken into consideration. Where land is dear, and often difficult to procure, as in large towns, it becomes necessary to arrange the rooms in flats or storeys; but when this plan can be conveniently avoided, it should be. If it is adopted, the infants should always be placed on the ground floor. Steep and narrow staircases must be carefully avoided, and the flights should be as short as convenient.

The best shape for the large room is a well-proportioned oblong, sufficiently wide to give desk room and floor space opposite for reading. With the usual grouping of desks 22 feet will be found sufficient, for small schools somewhat less. The width and shape of infant schools is not so important, as few desks are

required and much of the work is of a different kind. Small schools will approach more nearly a square, while large schools will be proportionately narrower as they increase in size. The most perfectly shaped room, and much the most convenient sized school for efficient working, is one for from 200 to 250 children. Very large rooms generally necessitate waste of space, and the accessories are much more difficult to arrange satisfactorily. Within reasonable limits the loftier the school-room the better; if it has a flat ceiling it should be at the very least 14 or 15 feet high.

The genius of our English system, its scheme of teachers, classification, &c., necessitate a large room. The separate class-room system adopted in Germany and elsewhere would be a mistake, in the vast majority of instances, under our present conditions, and must, under any circumstances, tend to diminish that *esprit de corps* and pride in the school on the part of the children so common in England.

Class-rooms should always be provided in sufficient number, and even the smallest schools should have one. The class-rooms should under ordinary circumstances furnish the gallery-room for oral lessons; but in addition to this in many of our large schools, with a considerable staff of assistants, class-rooms are now provided with desks, and worked pretty much like small schools under the supervision of one head. Under average conditions the class-rooms should hold from 30 to 40 children each. They should open directly on the large room, and have glass in the upper part of the door, or have a partially glazed partition. They should not be the means of communication between the school and the playground or offices. Where intended to hold desks, they must be wide enough to allow the children to be brought out on

the floor for reading; and where this cannot be arranged, the desks must be such as to allow the children to stand easily between them. Change of posture must not be forgotten.

In small schools it is not difficult to dispose the class-rooms suitably, but in large schools it is often no easy matter to arrange them so as not to interfere with the lighting of the large room, and yet afford facilities for proper supervision. A common plan is to place them side by side along one side of the school, and separated from it by a partition glazed in the upper half. This plan is said not to be desirable, as both lighting and proper ventilation are interfered with. They should at least not be placed across the end of the school which lies to the children's left when seated in the desks, as this precludes the use of the most valuable side light which can be obtained. Where an assistant and pupil teacher are intended to work together, a class-room sufficiently large for two classes, separated by means of a sliding partition so that it can be used either as a single room or divided into two, is very useful. A glazed partition will render easy the oversight of the pupil teacher's work by the assistant, in the lessons where each is independently employed. This seems a valuable means of training assistants to become head masters.

In America the attempt is sometimes made to combine the occasional use of a large room with the general employment of the class-room organisation. In such cases the fitting is so arranged that the schoolroom can be divided into a number of separate class-rooms by sliding partitions. These isolate the children as to sight, but can scarcely do so with respect to sound.

The walls of the rooms should be, wherever it can be afforded, panelled or match-boarded to a height of about 4½ to 5 feet; where this cannot be done they should be painted to this height. Above they should

be coloured, not white-washed as this gives an unpleasant glare which is trying to the eyes. French grey or very light stone colour answers very well. This colouring serves an important purpose in distributing the light.

Where boarding is used for floors, it should be of well dried timber, and of sufficient thickness to give solidity. Perhaps the best flooring for rooms on the ground floor is that made of good wood blocks laid in asphalt on a concrete bottom, or in cement. Oak is the best wood to employ, but pine is sometimes used. The blocks may be laid in an agreeable pattern with little or no additional expense, and they wear best if the grain runs perpendicularly.

The *lobby or cloak room* should be conveniently placed with respect to the playground, and it is better that the street door of the school-room should not open directly into it, as this affords facilities for the theft of caps, &c. It should be of suitable size and well lighted, secure enough for the children to feel confidence in leaving their things in it, and be liberally provided with pegs. The bent wire pegs with a connecting band in the middle wear much the best. In large schools, where the lobby is sufficiently large, a wooden partition about 5 feet high down the middle of the lobby affords increased peg space, and is serviceable in point of order. A folding door should communicate with the school itself. In connection with the lobby, but partitioned off from it, or better still forming a separate room, there should be a lavatory, provided with iron hand basins and taps.[1] These need not be numerous, two or three basins for each

[1] See an excellent arrangement of tap and basin figured in Robson's *School Architecture*, p. 212.

100 children are usually considered sufficient; soap and a few school towels are also necessaries which are very frequently forgotten.

When expense was in nearly all cases a most important consideration, and any room which could possibly be dispensed with was omitted, a *teacher's private room* was a rare thing. Since the advent of School Boards a room of this kind has become a part of most large new schools. Such a room is convenient for the instruction of pupil teachers, for holding surplus stock, the teacher's library, &c. It may also prove useful in case of accident or sudden illness.

It is a misfortune for a school not to have a good *playground* in connection with it, and except in cases of practical impossibility one should always be provided. It should be well fenced in, and protected from the intrusion of outsiders. 'The playground,' says Robson, 'is a most important adjunct to a school, and, whether for fresh air, exercise, amusement, recreation, or discipline, is quite as necessary in the production of satisfactory educational results as a class-room, or any other portion of the school proper. Not inaptly did Mr. Stow call it "the uncovered school-room." A good teacher will often be found to regard it as but another place for another kind of instruction. . . . It may sometimes happen that the plan of the buildings is so determined by the conditions of the site, as to leave only sunless playgrounds. Under ordinary circumstances, the aspect of these latter is quite as important as that of the school-rooms. Sun is here a necessary of life. Without it, the playgrounds will be mere draughty yards, conducive to colds, which are the seeds of so many disorders.'

The floor of the open playground is an important consideration. It should have a good slope, be thoroughly well drained, and properly 'made.' Fine gravel, which will bind well, does for the upper surface, but a surface of loose stones is the worst possible. Red furnace-ashes, to be obtained in some parts of the country, answer very well, but black ones should not be used. Asphalt is, perhaps, on the whole the most satisfactory ; but this is somewhat expensive, and has its drawbacks. Each playground should afford means for the children obtaining water to drink.

There should always be a supply of suitable appliances in the way of *gymnastic apparatus*, etc. A selection may be made, bearing in mind the needs of infant schools, from the following—giant-strides, swings, horizontal bars of varying heights, parallel bars either fixed in height or adjustable, ladders, ropes and poles for climbing, a double-inclined plane, see-saws, a wooden vaulting-horse, and jumping apparatus. In the provision of such appliances we are very far behind most foreign schools.

Where space is a consideration, arrangement may be made whereby the girls and infants may use the same yard at different times. Covered sheds, open on one side, should be provided, with asphalt floors, in the case of all large schools, to protect the children from occasional showers, and afford free space for recreation in wet weather. The covered playgrounds are fortunately becoming common. They are especially necessary in the case of infant schools, and in such cases form capital marching grounds. In some of the French infant schools, or *salles d'asile*, they are basement rooms, fitted up with seats, and warmed in winter. In America, too, the basement storey is frequently used for this purpose, but left open to the air.

A most important matter with respect to outdoor arrangements is the provision of proper *offices*. These should be retired, and not conspicuously placed, as is often the case. They should be suffici-

ently near to the school building to be convenient for the children, and yet far enough removed to prevent any contamination of the air in the rooms. The *drains* should be of good size, well connected at the joints, and properly trapped and ventilated.

They should have in all cases a sufficient fall to clear themselves; 'one in forty-eight is frequently given, or three-quarters of an inch in every yard; a fall of one in sixty-five. in drains of six inches diameter, and one in eighty-seven, in drains of eight inches diameter, will give a velocity of 220 feet.'[1] Traps are often inefficient from bad laying; if 'properly laid, a trap is efficient if water stands in it to the height of three-quarters of an inch above the openings.' For underground use, the ordinary syphon traps serve school purposes very well. To prevent the drains silting up, there should always be simple gulley traps in connection with the gratings for carrying off surface water. Pipes should be sufficiently large to prevent them under any ordinary circumstances from running full of water.

The closets, or latrines as they are now frequently called after the French, should be small separate apartments with white glazed brick walls, which present no facilities for writing upon, and are very cleanly. Great care should be taken to have the closets frequently cleaned, and they should be under regular inspection. In the case of large schools in towns, where a caretaker is employed, the seats and floors should be washed down daily by means of a pipe and hose.

The number of closets to be provided is about three to the first hundred, and one in addition for every succeeding fifty. Separate provision should be made for the teachers. Water-closets are very apt to lead to great waste of water; but,

[1] Parkes' *Hygiene.*

where they are used, a sufficient supply is absolutely necessary. The pans should be conical in shape, not hemispherical. Water-troughs are very useful where a supply of water and proper attendance can be secured. A large cast-iron or strong earthenware trough runs under the seats, and is kept about half full of water. By the opening of a valve the contents pass into large drains in connection with the sewer. Water-troughs should be well flushed at least once a day.

Earth-closets frequently answer well, and are, perhaps, the best adapted for general use. They may be constructed either with or without dust-regulating arrangements. In many cases they are made with hinged flaps at the back, by means of which dry earth can be thrown in periodically—once a day at least. In Moule's arrangement there is a hopper above, from which the dried earth falls when a valve is opened. Powdered clay, or marl, is said to be the best earth for use, though almost any will do if not very sandy or chalky; wood ashes answer well, but are not easily procured. Fine coke-dust is a good substitute, and coal-ashes and the dust from school sweeping are also used.

The *urinals* should be separated by slate slabs; the floor should have sufficient slope, there should be a fairly broad, but not deep trough, and the connecting openings should be large enough to allow a brush to be readily passed from one section to another. Care should be taken that the surface of the troughs is regular. Thorough and frequent flushing is a necessity.

B. *The Mode of Lighting.*

Good light is essential if the work is to be performed without strain to the sight. Windows in schools should be large and numerous, placed well up in the walls, so as never to form a background to anything exhibited by the teacher, and so arranged as to furnish both light and ventilation.

Small panes break up the light too much, and try the eyes ; the small diamond panes set in lead being particularly objectionable on many grounds. The panes, however, should not be too large, on account of breakage. Rods and levers are better for opening windows than cords, as being much less likely to get out of gear. All windows into which the sun can shine should have blinds provided. Excess or defect of light tends, not only to injure the eyes, but causes a drowsy depressed state of feeling, and, not unfrequently, headaches.

With respect to the most suitable kind of light Dr. Liebreich says, 'The light must be sufficiently strong and fall on the table from the left-hand side and, as far as possible, from above. . . . Light coming from the right hand is not so good as that from the left, because the shadow of the hand falls upon that part of the paper at which we are looking. Light from behind is still worse, because the head and upper part of the body throw a shadow on the book ; but the light that comes from the front and falls on the face is by far the worst of all. In the first place, it does not attain the object desired ; and next, it is most hurtful to the eye. The object is to make the fully illuminated faces more visible to the master ; but the children, instinctively desirous of avoiding the unpleasantness of the full glare, assume all sorts of positions, which turn their faces *from the master*. In reading they turn the head round the vertical axis, generally towards the right, in order to let the light fall on the book which, when held straight before them, is completely in shadow ; while in writing or in reading (the book being on the table) they bend their heads as low as possible, in order to shade their eyes by the projection of the forehead.' In some schools

arrangement is made for the admission of light from above by means of skylights or a lantern. These are very good so far as illumination is concerned, as the light is free from shadow and steadier than from the sides; but they are, especially lanterns, difficult to keep watertight. Ground glass is injurious, if light is admitted through it opposite to the eye; it ought not, therefore, to be used for the lower panes in windows, and the same objections apply to ribbed glass. The best authorities are of opinion that the main lighting of a school should not be from the south or south-west, on account of the heat and glare in summer, but there should be some light from this direction. A room into which the sun never shines is scarcely likely to be as healthy as it should be. The way in which the school is lighted will largely determine the arrangement of the furniture, and this again will need to be taken into consideration in the disposition of the fireplaces.

c. *Warming and Ventilation.*

So closely connected are warming and ventilation, that, not only in systems avowedly intended to accomplish both, but even in the case of the ordinary grate or stove, they need to be considered in connection. 'Warming is the motive power of ventilation.' Even in the case of summer ventilation the change of air depends mostly upon differences of temperature; the winter difficulty however is much the greater. Winds, which are but natural convection currents, often modify considerably the efficiency of warming and ventilation.

To warm a school, as is often done in Germany, without proper attention to change of air, is not a difficult matter;

but, when the absolute need for the latter is recognised, in large rooms, at least, the problem is not an easy one, and cannot be said to have been satisfactorily solved for all cases. What we need, is that the room should be kept at a proper temperature, and, at the same time, that an adequate supply of fresh air be admitted. A school may be even draughty and yet the air stagnate in odd corners. It is impossible to educate properly without due care for health, and proper ventilation is a necessity if healthy work is to be secured.

There can be no doubt that very much of the complaint we hear of the injurious effects of school-life upon children, and the early breaking down and heavy death-rate among teachers, are due far more to unwholesome conditions of work, than to the severity of the work itself. Where suitable means for healthy work exist, the teacher should look keenly to himself that they are most scrupulously attended to; where suitable means do not exist, he should leave no stone unturned to get matters righted at the hands of the managers. To work continuously in a close stuffy room is slow suicide.

Authorities are not agreed as to any exact temperature as the best for all conditions of school work. It will necessarily vary, within certain limits, with constitution, age, and the supply of food. Children, especially if ill-fed, require a higher temperature than adults. For infants, probably the best temperature is about 60° F.; and, for bigger children, 55° to 60°. It should not be allowed to fall to as low as 50°.

The life-sustaining property of the air in school is weakened in proportion to the consumption of its oxygen, and a poisonous element is added to it by the expiration of carbonic acid. It is further vitiated by certain animal matters, given out both by the lungs and by the skin; and to

which the bad smell so often found in school is to a large extent due. 'The expired air,' says Professor Huxley, 'differs from the air inspired in the following particulars:—

'*a.* Whatever the temperature of the external air is, that expired is nearly as hot as the blood, or has a temperature between 90° and 100°.

'*b.* However dry the external air may be, that expired is quite, or nearly, saturated with watery vapour.

'*c.* Though ordinary air contains nearly 2,100 parts of oxygen, and 7,900 of nitrogen, with not more than three parts of carbonic acid, in 10,000 parts, expired air contains about 470 parts of carbonic acid, and only between 1,500 and 1,600 parts of oxygen, while the quantity of nitrogen suffers little or no change. Speaking roughly, air which has been breathed once has gained 5 per cent. of carbonic acid, and lost 5 per cent of oxygen.

'From three hundred and fifty to four hundred cubic feet of air are thus passed through the lungs of an adult man, taking little or no exercise, in the course of twenty-four hours; and are charged with carbonic acid, and deprived of oxygen to the extent of nearly 5 per cent. This amounts to about eighteen cubic feet of the one gas taken in, and of the other given out. Thus, if a man be shut up in a close room, having the form of a cube seven feet in the side, every particle of air in that room will have passed through his lungs in twenty-four hours, and a fourth of the oxygen it contained will be replaced by carbonic acid. The quantity of carbon eliminated in the twenty-four hours is pretty clearly represented by a piece of pure charcoal weighing eight ounces. The quantity of water given off from the lungs in the twenty-four hours varies very much, but may be taken on the average as rather less than half a pint, or about nine ounces. It may fall below this amount, or increase to double or treble the quantity.'

It is stated by Dr. Beckar that each boy gives out by breathing about two-thirds of a cubic foot of car-

bonic acid every hour. 'Calculating the movement through the inlets to be at the rate of 150 feet per minute, from fifteen to twenty cubic feet of air per child per minute is required to pass into the school-room in a ceaseless stream.'[1] Restlessness, headache, lethargy, sleepiness, and inability to concentrate the attention may all be produced by vitiated atmosphere.

The various modes of warming may be divided into what may be called the *radiating* and the *convection* systems; the former warming the body directly, by heat radiated from fires or warmed surfaces; the latter indirectly, by first warming the air which is to surround the individual, then introducing it into the room, and leaving him to obtain his supply from this. The first class includes such means as open fire-grates, many stoves, hot water pipes, &c.; the second the so-called scientific systems of warming associated with ventilation schemes. Many of the new grates and stoves combine both radiation and convection, and for ordinary schools form the pleasantest and most efficient means of warming.

'Radiant heat,' says Dr. Parkes, 'has been considered by most writers the best means of warming'; but the greater the distance the more ineffectual this becomes, and hence used alone in large rooms it is not generally sufficient. *Open grates* are so associated with our ideas of comfort, and render a room in cold weather so pleasant and cheerful—which is a very important matter with children—that, either connected with the chimney in the ordinary way or forming part of a stove arrangement, they are much to be preferred for schools wherever size will permit. The imagina-

[1] See on this and many other points Robson's *School Architecture*.

tion often has a good deal to do with our sensations; and certainly on a cold day in winter we often feel warmer in a room when we can see a bright comfortable-looking fire than without one, even though the room is warmed by other means and the thermometer stands actually higher.

In open fire-grates, a large amount of heat goes up the chimney, leading to a comparatively large consumption of fuel. They are thus somewhat costly, but need not be burdensomely so. At least one fire-grate should be provided in every school for special use, even when an apparatus is relied upon to supply the warming. This may be placed in one of the class-rooms. In all cases fire-grates should be properly protected from the children to prevent accidents.

The radiating surface should be increased as much as possible, so that fires should be wide without being deep, from back to front. The sides of the fireplace should slope outwards, so as to form reflectors; and the more non-conducting the material the better. Faced with glazed Minton tiles they add much to the attractiveness of the fireplace, as well as increase the heat sent out into the room.

The chimney should be open to a height of from 3 ft. to 3 ft. 6 in. This alone is a great gain as to ventilation. Many of the best grates provide for air being brought from the outside round the heated back, and this warmed air is then sent into the room through gratings. The Boyd, the Manchester, Captain Galton's, the Longden, and the Pierce grates all make use of this principle. The first two seem particularly well suited for schools.

With respect to *stoves*, the old-fashioned iron ones are not only very objectionable, but have been left so far behind by improved forms that they should

never be adopted; and the same may be said of all the common forms, at least, of gas stoves. Common stoves not only dry the air too much, but it has been proved that, when iron is highly heated, more or less of poisonous carbonic oxide gas passes through: there is also the offensive burning of organic matter, which is no doubt largely answerable for the peculiar smell we detect when we speak of the air as having been burnt.

Gill-stoves, as the 'Gurney' and the 'Studio,' are sometimes useful for school purposes, and generally efficient as to warming; but they are frequently in the way, and need to be combined with an efficient system of ventilation. Gill-stoves must not be over fired. The undue drying of the air is said to be best provided against by having a trough of water at the bottom, in which the gills stand.[1] Many varieties of stoves are made combining an open fire grate with the warming of air introduced from without at the back of the stove.

Hot-water pipes are often used for large rooms. The system is generally an economical one, and as a rule may be made efficient so far as warmth is concerned, but these are almost its only recommendations. The pipes are very unsightly, are frequently in the way of cupboards, &c., they heat the same air over and over again, and if over-heated give rise to an unpleasant smell. High pressure systems and steam pipes should never be employed in schools.

Any system of heating for schools, to be good, must be simple and easily managed; and this the combined systems of *convection apparatus* and ventilation are not in many instances.

[1] See Robson, *op. cit.* p. 280.

Why they should be so frequently styled, more than others, scientific modes of warming, it is difficult to tell. When the air is passed between iron plates, the great danger is the overheating and the consequent presence of carbonic oxide, and the very unpleasant dryness. The inlets to the room too frequently create blasts of hot air, which are most harmful to the children and teachers near. Some of these plans work well under favourable circumstances; but the exposure of the school to winds has often a great influence in determining their success. They are generally too complicated, need so much care and such a nice adjustment of conditions, that they can only be managed well by experts.

In any system of this kind there should be a very large surface feebly heated. According to Dr. Parkes the surfaces used for warming the air should probably not be heated above 120° to 140° F. One of the most efficient and economical plans, combining warming and ventilation, where large heating power is required, is probably Constantine's convoluted stove, placed in the basement storey with a carefully arranged scheme of ventilating flues. There seems, however, to be considerable danger of the over-heating of the iron plates.

Every school should have several thermometers, and the heat be regulated by the state of the weather. There is not nearly sufficient attention paid to this. On some milder days just as much fire is frequently maintained as on colder ones, making the heat greater than is necessary—sometimes oppressively so—and rendering the children more liable to take cold on coming out.

In summer time the problem often is how to get rid of the heat naturally produced,[1] and let in cooler

[1] It is well known that in process of evaporation a liquid absorbs heat from surrounding bodies; thus, if a can of water be sprinkled over

and fresh air. There is not the same difference between the temperature inside and out, as in winter, and the air is therefore much more liable to stagnate, especially in certain parts. The movement of the air is not so rapid, and more extensive means of admitting fresh air and allowing foul to pass out must be used. Both inlets and outlets are frequently too small. Where the openings are too direct, especially if insufficient in size at the same time, the speed of the air is liable to be too great for comfort. A rate of 3½ feet per second, according to Dr. Parkes, is perceived by all persons; and anything greater than this causes the sensation of a draught.

Among the various modes of providing for the ingress and egress of air the following may be mentioned:—

1. Doors and windows.—These are most important, and whatever be the special means of ventilation, they should not be forgotten. In summer time they are more particularly valuable, and during recreation all should be thrown open and the air of the rooms thoroughly changed. Windows should be placed well up towards the ceiling, and the upper portion of each should always be made to open. This may be done in several ways; by allowing the top part to fall inwards to a sloping position, or by having it pivoted so as to swing like a looking-glass; or a casement form may be adopted; or lastly, the ordinary sash arrangement may be used. The latter is perhaps least practicable on account of the height necessitating the use of a hooked rod for opening, or some arrangement equally troublesome. A useful window

the floor of the schoolroom during very hot days, it will not only lay the dust but cool the atmosphere.

is one having a falling portion at top and a casement below.

2. The gratings in connection with fireplaces and stoves have been mentioned. They must be combined with suitable means for the egress of foul air.

3. Cowl ventilators of various forms have long been in use, though not often in schools. For ingress the cowls are made to turn *towards* the wind and the pipes carried to the bottom of the room ; for egress they proceed from near the ceiling, and the cowls turn away *from* the wind. *Sylvester's plan* is an adaptation of this principle. With a gentle steady current they act very well, but in some states of the air they do not act at all, and in others create draughts and are difficult to regulate. Cowl ventilators may sometimes be usefully employed as means of egress alone, in connection with other modes of introducing fresh air.

4. Arnot's balance valve.—This is one of the commonest modes by which the aspirating power of the chimney is made use of for getting rid of foul air. The valve consists of a light metal plate carefully swung on pivots at the bottom of a frame. Any pressure from the inside of the room makes it fall into a sloping position, leaving an opening into the chimney for the escape of the heated gases ; any draught down the chimney closes it. It requires very careful setting in the brickwork, and is then efficient ; otherwise it does not close readily. The unpleasant noise made by its flapping is against it, and after much use it gets out of order from wear.

5. Gratings and Valves.—These perhaps are the commonest means of ventilation. Their great objection is the almost certain draughts. They may be of

various shapes—square, oblong, or round; they may close in various ways, by slides or flaps; and may be placed in the sides, floor, or ceiling of the room. Gratings without means of closing should not be used for either direct ingress or egress. In connection with external gratings in the upper part of the walls, intended as inlets, the *Sheringham valve* is useful; or a simple sloping board with sides to direct the air upwards may be used. *Circular plate ventilators* may be classed with gratings. These placed over the gas pendants are sometimes employed, with proper openings through the side walls.

6. Vertical shaft ventilators.—Fresh air admitted directly at the bottom of the room creates draughts which catch the children's feet and legs. To prevent cold draughts of this kind, it is necessary to deflect the air current upwards, so that it may spread out fountain-like before it falls. This is accomplished by vertical shaft inlet ventilators. *Tobin's tubes* are perhaps the best known. These are long pipes of any convenient shape, placed up the walls at intervals, and with openings at the bottom to the outside air. In a patented arrangement of these tubes a sloping plate is fixed inside the opening, to turn down the air over the surface of a small pan of water placed beneath, so that dust and other solid impurities are not carried into the room.

Several forms of vertical shafts intended for egress are in use. A capital means of removing impure air from a room is to have an upright shaft alongside the chimney, so that the heat of the latter may give rise to an aspirating action. The opening of the shaft should of course be near the top of the wall. Tubes are sometimes let into the roof and

carried some distance up, with funnel tops to keep out the wet.

M'Kinnell's double cylinder ventilator is a very useful form. It consists of two tubes of different diameters one placed inside the other. The outer one is flush with the ceiling at its inner end, and is carried up above the roof. The inner tube descends some way into the room, and has an outer broad flange at right angles to its length. At the upper end it is extended some distance beyond the outer tube. Both upper openings must be protected from the rain, the inner one best by a cowl. The air enters the room by the outer tube, is deflected by the flange upwards and outwards, and thus disperses. The inner tube carries off the heated air, and its action is much increased by a gas jet at the bottom. There should be means for closing at least the inner tube, as the action of a fire may cause both to become inlet tubes, and the air in that case would fall from the inner one in a direct cold stream.

7. Louvre ventilators are frequently employed in various ways. In all forms the characteristic element is the series of adjustable flaps like a venetian blind. Large ventilators of this kind are sometimes placed in the side of a turret in the roof, with trap-doors inside, which may be opened or closed as required. They are useful outlets, but almost invariably let in the wet. A louvre ventilator of strips of glass may form one section of the window.

D. *Fittings and Furniture.*

In fitting up and furnishing a school it is necessary to keep steadily in view the use to which the things

are to be put, so that they may subserve that use in the best manner. In the disposal of them we must look to the conditions of work, and, when these are satisfied, see that the arrangement is as pleasing and symmetrical as possible. Desks all out of line, cupboards placed anywhere and not parallel to the wall, the master's desk placed in an unsuitable position for his seeing the children, forms scattered here and there, blackboards and easels tumbled in a confused heap, maps and pictures all awry or simply hung in a line without any regard to colour or arrangement, and books littered about in disordered groups, betray a carelessness and want of taste which no good teacher will be guilty of. A habit of instantly detecting anything wrong is a valuable one. A good teacher will always have his eyes open; he will not only see that the furniture is kept free from dust, but that the same is done in the case of the walls, beams, maps, &c. He will detect and stop at the outset any writing on walls, or disfigurement of desks or other things, and will see generally that the school is, as far as it is possible to make it so, a pattern of order and cleanliness.

1. **Galleries.**—These should be so placed that the light comes either from the side or from above; if from the back, this renders it difficult for the teacher to see the children's faces, and is trying to the sight; and if from the front, it is bad for the children. A good gallery is indispensable in an infant school; and one or two, as needed, of sufficient size to hold a large class, are very useful for oral instruction in the class rooms of boys' and girls' schools. An *infant school gallery* should not accommodate more than eighty at the very outside, and is more useful for some twenty

less. If the numbers are large, two galleries should be provided of different sizes, one of them movable. The seats on the gallery should be so arranged as to leave a gangway of from 16 to 18 inches wide up each side; and, if the gallery does not extend across from wall to wall, the sides should be carefully railed. Most infant school galleries are so arranged that each platform forms a seat for one row of children and a footboard for the row above. In this case the platforms should rise from 8 to 10 inches above each other, and be 23 inches wide. A strong sloping board, about 8 inches in width, should form a back support for the one set of children, and prevent their being kicked by those behind, or their clothes being soiled by the dirt from the boots. The seat should not be less than 9 inches broad, and about 14 or 15 inches should be allowed for each child. The steps up the gangways should be half the height of the platforms. Five rows deep is quite enough, and the number should not exceed six. Where the wall forms the support for the back seat it should be boarded. Many of our galleries are too high, and it would be far better, both for use and for cleanliness, to have separate seats with backs. In this case the gallery need not be much more than half the height: the children thus breathe a purer atmosphere; the seats can be cleared off and the gallery thoroughly swept, which is often not done when the seats are fixed; and the unpleasant drumming with the heels against the back of the platforms is avoided. In some cases infant schools are built with a semi-circular recess, and the seats are made to take a corresponding curve. These recesses sometimes reflect the sound in a very unpleasant fashion. In some of

the French galleries the seats are arranged so that each row forms three sides of a polygon, the middle seats increasing in length as they recede from the teacher. A gangway is then generally left down the centre, which serves to separate boys and girls. A board is also attached by hinges to the back of each seat, so that it can be raised on supports and form a narrow table for the children in the row behind. These enable the Kindergarten exercises to be performed on the gallery.

Galleries for the upper schools will generally be smaller than those for infants. From 16 to 18 inches should be allowed per child, and movable seats with backs should by all means be employed. Backs to seats are generally too high; it is not the shoulders which need support, but the middle of the back; 9 or 10 inches may be taken as a useful average for ordinary schools. The platforms should allow plenty of space for the children to stand, and to pass in and out easily; they should not be less than 2 feet broad, and for the older children will need to be somewhat more.

2. Desks, &c.—In an infant school, desks are only required for the older children, more especially those preparing for Standard I., and therefore need not be numerous. A group or two will often be sufficient. In schools for older children a much larger provision of desk room should be made than is often the case. It is not necessary to be able to seat every child in desks, but at least two-thirds of the children should be provided for.

Infant school desks should not be made like ordinary ones, and should serve both for writing purposes and as tables for Kindergarten exercises. The tops

should therefore be flat, not sloping; adjustable desks are too much trouble here as needing such frequent alteration. The tops should be about 11 inches wide, and if two groups are required the heights most favoured are 17½ and 19½ inches from the ground respectively, the corresponding seats being 10½ and 11½ inches. The seats should be 8 inches wide, and have back rests, the centre of the support being about 7 inches above the seat. A perpendicular line from the edge of the desk should only be slightly removed from the edge of the seat, and each desk should have a sloping footboard. Book-rests are not needed.

Desks for older children should vary in character and dimensions with the age of the children. The tops should be one continuous slope, and be 13 inches wide; the flat portions often found only take up room, are useless for writing, and are better dispensed with. The ink-wells may easily be sunk just below the level of the top, and should be placed to the *right* of the children. Various ink-well covers are in use, slides, flaps, drawboards, &c.; they should afford as little opportunity for being played with as possible, and be so made as not to be easily deranged. A groove should run between the ink-wells for pencils, pens, &c. For the younger classes there should be a shelf beneath for books and slates; for the older children, with a number of books, locker desks are very useful.

Short desks with a flap top, one half turning over on the other, are very fashionable in some quarters, but are better avoided. They soon get strained, and so form an ugly double ridge with a gap between, upon which it is almost impossible to write well; the children's fingers are liable to get severely pinched; and the expense is considerably increased. It is claimed that they allow a child to stand

easily in his place, but he cannot do this more readily than in the ordinary arrangement without moving out or disturbing his books and his neighbour.

Much diversity of opinion exists as to the proper slope of the top; many German authorities favour a steep slope, but a slope of 1 in 10 is probably about the best for general use. The height of the desks should vary with the age of the children. For those of 7 or 8 years of age the height should be about 25 inches from the floor to the middle of the slope, and the accompanying seats 14½ inches high; for children of 13 to 14 the top should be 30 inches high, and the seat 16½. The heights of the intermediate desks may be easily settled. A useful general rule is sometimes given for the height of the front edge of the desk above the seat, that the distance should be equal to the length of the forearm of the scholars intended to use them, or about one-sixth the height of the child. The general opinion seems to be that the height of the seat from the floor should be the length of the scholar's leg from the sole of the foot to the knee. Many medical men have written strongly against employing seats without backs, tracing to unsuitable desks curvature of the spine, displacement of the shoulders, and a large share in the production of short sight.

Dr. Liebreich has adopted a convex form of seat, often composed of three bars at different angles, so as to fit into the middle of the back; Dr. Roth places a single bar higher, and supports the centre of the back by an adjustable wooden pad. Both these are far too expensive for common schools, but very useful for upper classes of higher grade schools, especially in the case of girls. A plain bar does very well, if broad enough, rounded towards the front, and not placed too high.

The seats should not be less than 8 inches wide, and for the older scholars rather more. The distance of the edge of the seat from a perpendicular let fall from the edge of the desk is generally too great. Where the seats have backs difficulties of standing necessitate a distance of from 2 to 3 inches; where the forms are without backs 1 inch is ample, as the children stand behind the seats. For writing the seat needs to be well forward, and a very useful swing seat has been made, which falls back when the children stand.[1] The Swedish single desks have hinged seats, which can be lifted when the child rises. For writing from 18 to 22 inches should be allowed for each child; and footboards should be provided. These tend greatly to diminish the injurious leaning of the chest against the desk. Desks that can be converted into lecture seats, tables, &c., are best avoided unless absolutely required for other than school purposes. The desks should not be screwed to the floor, but fastened upon sleepers, which, in the case of the usual arrangement, should be dovetailed together, so that each group is held firmly, but may be separated for moving. *Ink-wells* vary greatly in pattern, and are made of various materials—earthenware, glass, lead, lead lined with glass, gutta-percha, &c. For common purposes earthenware are the best, though lined lead are good. The opening should not be too broad, so as to keep out the dust, and the top should be saucer-shaped, so as to catch waste ink.

With respect to the *arrangement of the desks* many different plans have strong advocates. We may divide the modes of grouping into two distinct classes. In the *short length system* the desks seat one, two,

[1] Brought out by Colman & Glendenning, of Norwich.

or four children, not more; and the pupils are reached from the side by gangways leading out in lines from the front to the back of the class. In America the single desk arrangement is much in vogue, and a similar plan is in use in Sweden and elsewhere. In Holland dual desks are generally employed, and these are in use in some parts of England, especially in the Board Schools of London. In Germany and Switzerland the desks usually seat four pupils each. In the short length arrangement the desks are placed close up to each other from front to back, and five, six, or even more rows are used. There should not be more than five. The advantages of the plan are the facility with which the teacher can reach every pupil, the ease with which any child can leave without disturbing any one else, the readiness with which the size of a group can be varied, and the simplification which it affords of the difficulties attending seats with backs. The disadvantages are the greater area covered by the class, which increases the difficulty of control, and decreases the available floor space; the difficulty of concentrating a class for oral teaching; the greater expense; and the increased trouble if the desks are to be kept properly in their places, without being screwed down Where this trouble is not taken, the irregular lines, straggling scattered arrangement, and varying widths of gangway give a slovenly look to the school, which is very unpleasant. In the *long length system* of arrangement the desks are made to seat six, eight, or even more children each, and are almost invariably grouped three deep, as suggested by the Committee of Council; though they are often useful arranged in fours where the school is wide enough to allow of this. The

boys are reached from the back of each row by gangways just wide enough for the teacher to pass easily between each desk and the next. This arrangement increases the width required between the desks, it is a little more trouble to reach individual scholars, and a child leaving is apt to disturb other pupils. The advantages are—the floor space is economised, the classes can be readily concentrated, the desks are not easily disarranged, the cost is less, and the work can be examined more readily from behind than at the side. The practical difficulties of providing at the same time backed seats, easy means of ingress and egress, proper distance of seat from desk, and such an arrangement as will allow the child to stand up in his place, are very great, and cannot be said to be solved with complete success in any existing desk intended to seat more than one. The swing seat previously mentioned is perhaps the nearest attempt.

When children are brought out of the desks on to the floor they should be placed well in front of the teacher, and may be arranged in a semi-circle, hollow square, circle, or phalanx, according to the teacher's taste. It is a common practice to mark these standing places every morning with chalk. A better plan is to fix the best positions, and mark the lines with copper nails, having good sized flat heads. These are readily seen and need no renewing.

3. Teacher's Desks, &c.—For the master's or mistress's desk the best pattern is the one like an office writing table, strongly made with drawers down each side and a shallow drawer in the middle, the space for knees and feet being closed in front, and fitted with a narrow shelf about 8 or 10 inches from the top. It is better to have the top itself flat, and employ a

movable slope for writing upon. The desk should be raised on the platform about 6 or 8 inches high. The head teacher's desk should be so placed that every child in the large room may be easily seen from it, and, this being secured, it should be as much out of the way as possible.

Every girl's school should have a mistress's work-table. This should have one part of the top to open, with space for materials, &c., underneath, and lower down two or three good drawers. The opposite side to the one which opens may, if thought desirable, have a leaf, which can be raised when greater space is required for cutting out, &c. In well-furnished schools the teachers of the principal classes are each provided with a small light desk, having a receptacle for the teacher's books at the top. These should be made sufficiently high to be used by the teacher while standing. They should be placed on castors, and be light enough to be readily moved. In large schools, at least, there should be a strong reading stand for occasional use in Scripture or collective lessons, and for other purposes.

4. Cupboards.—There should be one or two large cupboards as required to hold new books and apparatus, and a smaller cupboard for each two adjoining classes (or a single class if a large one), in which copy-books, reading books, slates, dusters, &c., may be kept. In small schools class-boxes will be sufficient. Under one of the large cupboards a drawing board rack is often useful. In the case of a school possessing a library, and a collection of articles for lessons, proper receptacles will be needed for these. All cupboards should be well and strongly made, the doors being carefully fitted to shut close so as to exclude dust.

5. Forms.—A few loose forms will always be found useful for special purposes: they should have seats of not less than 8 or 9 inches in width, should be sufficiently strong not to give way in the middle, and should not be of too great a length.

6. Curtains.—In many schools curtains are provided to isolate the classes when in the desks. They help to confine attention, and somewhat deaden the sound, but they often interfere seriously with the light from the side. It is a mistake to hang them, as is commonly done, in the *middle* of the gangway. Children cannot leave the class, or the teacher enter among the boys, when this is so, without disturbing the curtain, and thereby adding considerably to the wear. It should be hung on one side nearly close to one group of desks, so as to leave each group one free gangway. Various materials are in use for curtains; as baize, moreen, or twill. The rod from which the curtains are hung should not be driven into the wall, but be taken through and have a plate on the other side. The free end may be supported by a light chain from the roof.

7. Hammocks or cots.—In large infant schools there should be three or four cots or hammocks in the babies' room, so that any little ones who become tired and sleepy during hot weather may be put to rest. Hammocks, like large canvas trays, after the French fashion, with rope and ring fittings for fastening to hooks or brackets from the walls, have the advantage that they may be rolled up and the brackets turned to the wall when not in use; thus leaving the space free.

8. Miscellaneous.—A suitable chair should be provided for the head teacher's desk; and a few ordinary

chairs for the use of visitors, and for the occasional use of the teachers in girls' schools, who ought not to be allowed to stand all day. Every school containing little children, which is warmed by fireplaces, should have these well protected by guards. Among small items of furniture may be mentioned, a map-stick, ink-well trays, can for filling ink-wells, a gong or bell, pen and pencil boxes, and a chalk box.

CHAPTER III.

THE CLASSIFICATION OF THE CHILDREN.

DIRECTLY the practice of instructing a number of individuals by addressing them all at the same time came into use, classification became a necessity. It is evident that the more nearly the children of a group are on the same intellectual level, both of ability and attainments, the more perfectly can the instruction be suited to their needs, the greater will be the power of emulation, and the larger the number becomes which can be taught together with success. In proportion as the classification is bad will the extent of the teaching influence be decreased.

The difficulties which lie in the way of a perfect classification are numerous, such as wide range of acquirements with only few children; the great differences of power, not only to grasp what is taught, but to advance, and the impossibility of judging of this in the case of new pupils; the fact that if all start together there will soon be conspicuous diversities needing further readjustment; the marked dissimilarities of ability with respect to different subjects; the diverse periods at which the faculties begin to act with sufficient strength to be of use, a child being frequently dull in certain directions up to a particular stage and then shooting rapidly ahead;

the necessity of meeting in the best way the claims of individual and simultaneous instruction; the need for varied treatment according to the character and idiosyncrasies of the pupils; the differences of constitution, and of the effect of studies upon health; variations of interest in school work and of anxiety to progress, arising from home influences, advantages, and previous treatment; and the frequent deficiency in the requisite number of teachers to officer all suitable divisions well. All these points show how cautiously the teacher should proceed if the best effects are to be obtained, and how much judgment is required to adjust the balance properly, to give each element its due weight and no more. We have to fix upon certain points as forming a roughly correct criterion, and strike an average. We must be content with approximate results; nor is an exceedingly minute and exact classification to be wished for. Up to a certain point difference is valuable; it provokes more emulation, gives greater variety to the work, and allows the teacher greater freedom. The difficulty is so to balance requirements as to fix the proper maximum and minimum points for the classes, and in fairly large schools this is practically not great.

A good classification places each child under the best possible average conditions of work; it provides him with appropriate subjects of study, and puts him in the most fitting position to profit by the teaching; it ranks him with the most suitable companions for the stimulus of emulation to act; and it enables the general business of the group to be so conducted that the action of each may tend to the benefit of all.

The consideration of some of the above points led at first to the adoption of a separate classification for

each subject. This had the advantage of an exact adaptation of studies, it brought the children into competition with a large number of others, and into contact with several cultivated minds instead of one only; but it was practically attended with much trouble and inconvenience, and was not so desirable a thing as it seemed. Not only was much time wasted and the proper distribution of work as to noise and position of classes interfered with, but it humoured fancies for particular studies at an age when all-round cultivation is the thing needed. It also weakened the respect for position and the motives to exertion; a boy feeling no shame for neglect of, or backwardness in, some subjects, so long as he stood well in others. As all the school was employed at the same time in the same work it prevented the master distributing his time among the various classes in the most efficient way. The great difficulties in working soon induced teachers to abandon the *manifold* classification, and group the subjects into three sets: (1) reading and literary subjects; (2) arithmetic, and allied branches; (3) mechanical subjects, such as writing, &c. On these the classification was based. The small importance of the last, however, so far as classification is concerned, led to its abandonment as one of the bases; and thus the *twofold* arrangement was arrived at, founded on the mathematical side of the work on the one hand, and the literary on the other. There is much to be said for this system of grouping, but the fixing of the code standards, necessitating the bringing of all the children of one stage up to a certain general level, has led to the almost universal adoption of the *single* system of classification in elementary schools. The great

advantages of this are the simplicity in working, the prevention of one-sided development, and the certainty that all subjects of instruction included in the curriculum will receive their proper share of attention from all the children.

In some of the schools of America, and elsewhere, the system is in vogue of limiting the work of each teacher to instruction in one or more subjects, which, knowing most perfectly, he can best teach; and then *making the classes circulate* from teacher to teacher for their various lessons. It is claimed that when the instruction is thus given by those who become more or less specialists, it is of a higher and more useful character, that the children get more breadth of view from contact with different minds, that the teacher with a narrower range of work is able to make more perfect preparation, and concentrate his attention on the methods required. The work, however, when once learned would lack variety, soon grow monotonous, and probably end in a mechanical routine. The plan directs the teacher's attention too exclusively to instruction, and too little to the need of knowing the scholar's disposition and peculiarities. The formation of the child's character would be everybody's, and hence practically nobody's, business. When a teacher has a class continuously under his control, he feels the responsibility more keenly of looking after their general welfare; there arises a sympathy and good feeling between him and his class, which not only stimulates energy, but smooths many a difficulty. If he has to deal with every class in turn, his influence has to be scattered over so great a number, that he feels little interest in the children beyond their success in the particular subject for which he is responsible. Discipline becomes much more difficult to maintain by moral power, and hence becomes more artificial in its character. If information were everything required by the child, more might be said for the plan. The system generally adopted in Germany of fixing a teacher at one stage of

work until he becomes a specialist in this, and of bringing the children into contact with a different teacher every stage they rise, is much less objectionable; though it can scarcely be doubted that, with English teachers at least, continuance at the same standard work year after year would not be a gain either to the teachers or to the children.

The word class came through the Latin from a root meaning to call, and hence in its original form was applied to any assembly called together for some purpose. As commonly employed in connection with schools *class* stands for any group of children arranged together for teaching; but in a technical sense—as used in the examination schedule for instance—it is a fixed group standing together on the registers, bearing a certain number, and *as a rule* forming the ordinary working division. The size of the actual teaching division may vary within certain limits from hour to hour, or day to day, according to the distribution of teachers, or the needs of the subject in hand; the technical classes are invariable for the year, except in so far as they are modified by promotions.

When for certain subjects, which may be taught by a skilled teacher in large groups, we combine two, or it may be several, of the ordinary working classes, we usually denominate these *sections*; or we may apply the term to certain fixed large divisions of the school, each comprehending several of the register classes. The subdivisions of the ordinary working classes into groups of ten or twelve are almost universally called *drafts*. It may be said that we owe the use of drafts to Lancaster, classes to Bell, and sections to Stow.

In very many of the schools of America and on the Continent the children are graded. *Grades* differ from classes principally in that they are based on an arrangement of studies suitable for different ages, and hence may be large or small according to circumstances; while classes depend mostly upon attainments and teaching requirements. Each grade, if sufficiently large, may be divided into classes in the ordinary way. Thus if in all English schools the pupils were divided according to the standards, and the teaching divisions of these were never allowed to extend beyond the standard of which they form a part, we should have a system of grades, very similar to that in use in America: in all schools the number of grades would be fixed, and the number of classes would depend upon the size, &c. In Prussia, where all children are compelled to begin school work at the same age, each of these grades really covers one year's work. A rigid system of this kind has administrative advantages, but it has its defects so far as the children are concerned, as will be noted when we speak of age.

A. *Practical Considerations respecting Classification.*

1. The first thing is to estimate correctly the extent of the boys' attainments, and to do this requires a searching examination in the branches selected as tests. We have to rely upon the information gained, as shown by this examination, and upon apparent intelligence. The parents' estimate of a child's knowledge or ability must be received with caution. Where previous progress has been uniform in all the three rudimentary subjects, there is not much difficulty; but where considerable diversity in this respect exists, it becomes necessary to balance the claims of one subject against another. It seems natural to adopt as the

main test the one of the three subjects which is most dependent upon sound class teaching. This is undoubtedly arithmetic. Writing is mechanical and the instruction mainly individual. Reading is mostly a matter of corrected practice, and for this the groups may be subdivided if required. Backward children again may be much more easily and successfully coached in reading than in arithmetic. In case then we have to decide respecting progress in these two subjects, the latter should have the most weight attached to it. Cases of exceptional unevenness of attainment will become fewer and fewer as regular attendance at school is enforced; the most difficult ones now met with are those in which the child has been previously educated at a private school. In such cases more attention should for a time be directed to those subjects in which the pupil is below the common level.

2. The size of the school often largely affects the satisfactoriness of the classification. Where the range of knowledge is small—for instance in schools confined to higher or lower standards—classification is much simplified. Village schools often afford considerable trouble. The larger the school, other things being equal, the more exact may the classification be made.

3. The last standard passed is the first rough test, and should settle the group to which a child should belong; though in a large school there may be several classes in the group preparing for the same standard, and other considerations will determine where he should be placed. No intermixture of classes or standards is allowed on the examination schedule: hence when a boy has passed a certain standard, but is very backward (it may be he has been away from school for some time), it is sometimes difficult to place

him well. His attainments would lead us to put him with boys of a lower standard than the one he should be preparing for, and this would lead to confusion. If he is very far behind, it is better to place him where he will only be a little below the general level, and insert his name on the schedule among the exceptions.

4. The number and quality of the teachers need also to be taken into consideration in settling the limits of the classes. The number of separate groups must not be more than can be efficiently officered, and each class must not be larger, or require a wider range of teaching, than the teacher into whose charge it is to be given can well manage. It is a mistake to give any teacher, whether certificated or not, a class of the size we sometimes hear talked of as answering on the continent. No teacher can, under average conditions, teach 80 or 100 children with thorough efficiency in the ordinary branches of instruction.

5. The subjects to be taught largely influence the suitability of a certain size of class. Oral teaching may often effectively be given to large groups, and hence for some lessons, where circumstances will admit, two or even more classes, according to their size, may be combined. For other lessons, as arithmetic, the ordinary classes, say of 30 children, seem most suitable; while reading, requiring as it does a large amount of individual practice—which unlike the case of writing cannot be effectively obtained unless one boy is taken at a time—is best taught in small drafts drawn from the classes.

6. Age should not as a rule be allowed much weight in classification. Even under the most perfect and long continued system of national education, it can never be a sound principle on which to group

children for teaching. Its employment as a classification test supposes a uniformity of growth in children which does not exist and that each faculty comes into useful activity at the same time in all children and develops at a similar rate; whereas the power to apply the mind in a particular way frequently commences in different children at very diverse ages, acts with much irregularity, and shows considerable variations in the rapidity of its growth. As a general test, then, age occupies a very subordinate place; but there are a few cases where it must be taken into account.

A child may have parents who feel no interest in education, and hence may have been allowed to spend his time at home, or he may have been neglected from other causes, till compelled by the law to attend school. His ignorance would lead us to place him, perhaps, in the lowest class in the school, or nearly so, among boys altogether his juniors. But this would be an evil in many ways. He will probably associate his degradation with learning, and so be prejudiced against it; he will feel himself aggrieved, and oppose himself to the school which has so treated him; lastly, the hopelessness of rising so far as to join those of his own age will be likely to dishearten him, and he will be inclined to let things take their chance. His influence over his classfellows, not from his age alone, but from his greater experience and the natural way in which he assumes command, may be of a very pernicious kind. His knowledge of evil will probably be much more extended than theirs, his example an evil one, and he is likely to be a ringleader in mischief, or perhaps to play the part of a petty tyrant over his comrades. Here, then, for the good of himself and others, we must make allowances, place him on account of his age considerably higher than we should otherwise do, and encourage and help him as much as possible.

7. Readjustment and promotion need much more attention than they seem to receive. The year's work, laid down in the 'standard' requirements, indicates the amount of work which a child of average ability under ordinary circumstances should be able to accomplish well. There are doubtless, on one side, a few very dull and backward children, who are unduly strained in order to bring them up to the necessary level in the time; but there are, on the other, many quick and intelligent scholars, who can accomplish more, but who are kept back and made to go over day after day exercises they can perform with ease, while attention is given to the dull ones. One of the very worst features of our present practice is this tendency to reduce all to a dead level of acquirement. To those who could progress the retardation till the examination is passed is a great evil. They find time for mischief, they grow weary of this intellectual treadmill, by which they constantly move but never advance; they frequently become irregular; they pick up indolent and inattentive habits; they interfere with their slow comrades, and not unfrequently retrograde themselves. This state of things should not be allowed to exist. Frequent promotions are to be deprecated, nor should a child be moved until he is thoroughly well grounded, but there seems to be no reason why at the end of six or nine months those who can perform their standard work easily should not be put up. They might be made to keep up their class subjects from their books, and be worked in their proper standard again for a few weeks just before the examination. Another plan would be to form those who pass the test examination into a draft, and let them sit by themselves in the class and work largely from their books at more advanced exercises.

B. *Mixed Schools.*

The question of the co-education of the sexes is one which has been very much discussed, especially in America, and conclusions the opposite of one another have been arrived at. In England, except in the case of Wesleyan schools, which from their early adoption of Stow's principles adhere to the plan in many instances, mixed schools (excluding infant schools) have nearly always been adopted as an economical expedient, and quite apart from the question of the benefit or not arising from the admixture of boys and girls.

The limited number of the children to be provided for in many country places, and the unavoidable wastefulness in such cases of supplying two schools, led naturally to the grouping of the sexes together under one head teacher. In Scotland Stow's influence is still felt, so that many of the schools are mixed, and the plan is much employed in Holland and Switzerland. The system has not found much favour in Germany or France ; and where it is employed in the latter country, the Government circular requires the separation of the sexes by a partition which must be at least a metre and a half high. In America, however, the system is strongly believed in, and prevails to a very large extent in the lower grades of primary schools. It is also adopted very frequently in secondary schools, and even in some of the colleges. In England the head teacher is generally a master, in America more frequently a mistress.

In the case of villages the plan is undoubtedly a valuable makeshift. Here, too, as the children know

one another, less objection can be urged against its use than in the case of town schools. The general view taken in England, that beyond the infant age it is better wherever the circumstances will allow to have separate schools, is probably the right one; though the evidence on many sides seems conclusive that mixed schools can be made, not only efficient, but to possess in numerous instances advantages in the way of general training. 'Where there has been,' says an American writer, 'a thorough and proper trial of the co-education of boys and girls, the testimony seems to be strongly and almost exclusively favourable to that system. In many of the large cities of the Union this is the prevalent plan of organisation, and the reports of superintendents are quite emphatic in its approval.'

The objections generally urged against the plan, many of which no doubt obtain to a greater or less degree, are, that the education of boys and girls, having somewhat different ends in view, cannot be properly made identical in the means: that a uniform discipline cannot be administered without much injury, the girls needing often to be treated in quite a different way from the boys; that the girls become forward and self-assertive, and lose, in a way never to be regained, that innate modesty and sense of propriety, that delicacy of both feeling and action, which distinguishes the sex when properly trained; that the girls having to learn needlework and other things, in addition to the ordinary subjects, can scarcely be expected to make as much progress in these as boys, and for them always to figure as laggards is unfair; and finally, that where a master is employed there is no room for the development of those little affectionate

traits which distinguish the intercourse of girls with a mistress. In opposition to this it is held, by those who have worked the system long and thoroughly, that when properly carried out the evils do not exist: that the girls exert a refining influence upon the rougher and coarser natures of the opposite sex, and that the stimulus of working with boys improves their intellectual tone; that the shy, timorous, nervous manner of many girls is improved, and greater independence of action, greater self-reliance implanted; that the system tends to check that rudeness and disrespect to women which are unfortunately so common, and that the girls brought up with boys regard them less as objects of wonder, and are thus less romantically inclined.

After all, it seems the question is mainly one of good or bad government. Under a judicious and skilful teacher, alive to the needs of both sexes, and aware of the evils likely to arise, a mixed school may serve its purpose admirably; but there can be little doubt that the benefits sometimes claimed are extravagantly stated, and are not realised in numerous cases, while effects of a prejudicial character arise, especially to the girls. Where the system is in working great care should be exercised; separate playgrounds and cloak-rooms should be provided; the offices and their approaches must be perfectly detached; the sexes should not be allowed to mix promiscuously in the class, but be grouped in different parts; and the girls should not act as monitors.

CHAPTER IV.

THE QUALIFICATIONS, DUTIES, AND DISTRIBUTION OF THE TEACHERS.

'I DO verily believe,' says Professor Wayland, 'that nothing so cultivates the powers of a man's own mind as thorough, generous, liberal, and indefatigable teaching'; and we may add, no profession affords greater opportunities of usefulness, no labour is fraught with more momentous results, or to the true worker affords greater satisfaction when successfully performed, than that of the teacher. Almost everything, however, depends upon the spirit in which the work is carried on. If it is viewed merely as a means of earning a respectable livelihood, and the teacher is always on the look out for something to turn up; if its troubles and difficulties are magnified by being dwelt upon, and we refuse to count its pleasures; if the children are looked upon as so many 'bristling fragments of humanity', in whom perversity, stupidity, and rebelliousness are the most strongly marked features; if the only end aimed at is the pressing children through a certain minimum of required instruction; if it becomes to us the reluctant performance of a spiritless routine of duty,—then its possibilities of weariness, disgust, and disheartenment are almost boundless, and it grows to be a slavery to

which Egyptian bondage were preferable. 'Teaching is the noblest of all professions,' says Mr. Fitch, 'but it is the sorriest of trades'; and he adds, 'he who takes his work as a dose is likely to find it nauseous.'

If, then, the teacher would perform his work, not only with profit to the scholars but with happiness and satisfaction to himself, it is necessary that he should take a high view of his duty; he must endeavour to cultivate those qualities which will enable him to perform it successfully, with the minimum of weariness, worry, and irritation, and be ever on the alert for improvement, or more skilled methods of procedure. He should be an enthusiast, but no visionary; a man of many devices, yet fanatically attached to none; hopeful, and inclined to take a cheerful view of things, yet not easily deceived by appearances; full of sympathy for little children, and prepared to make all due allowances for natural waywardness; having faith in himself without arrogance or conceit, and while fully recognising his own responsibility, ready to give a full share of credit to the efforts of those associated with him in the work. He must take care also to be at all times a worthy example to his children, bearing in mind the strength of the tendency in them to imitation. There is no calculating the mischief which an irritable gloomy temper may do.

His cheerfulness should keep his scholars on good terms with themselves, and encourage the flagging efforts of his subordinates. He should be able to interpret the workings of any boy's mind in terms of that mind, and not heedlessly put a construction upon them in accordance with his own habits of thought and action. He should be, as it were, in electric communi-

cation with every part of his school; able on the instant to interpret action aright, and ready at once to remedy any derangement of the machinery, or make good any broken sympathetic connection. His influence should be felt at all points—'an influence unseen, perhaps, and unobtrusive, but all-pervading; free from the slightest taint of distrust or suspicion, but checking insubordination before the thought of it has taken form; exacting a faithful performance of duties, yet encouraging by its inspiration before despondency has attained a conscious existence; soft and gentle as a mother's hand on the brow of a sick child, yet holding the reins of authority, and controlling the very motives of action, like the hand of fate.'[1]

Energy must not deteriorate into restlessness or noise, vigilance into espionage, confidence into neglect of precautions, or system into a mere mechanical routine.

A good teacher will never rest content with the present state of things, however excellent; but at the same time he will recognise exactly the limits to which a thing is practicable and useful. His methods, both of management and of teaching, should always be in a progressive state. They should *grow from within*—the better elements gradually thrusting outwards those which are less satisfactory—and not by patching from without, until all unity of design is lost. He should not attempt to fit stereotyped plans to all circumstances; what we want is more power of invention, of adaptation, more originality and less blind imitation. He should be of an inquiring turn of mind, given to make careful observations of child-nature, and to try experiments in teaching or govern-

[1] G. Howland in '*Education*.'

ment. He should strive to cultivate the same simple, thoughtful seeking after truth which distinguished Faraday. He will not begin all sorts of grand reforms and new schemes without counting the cost, and considering carefully what good is likely to accrue from them. When a reform has been decided upon, gradual and steady insistence is what is needed—all violent and sudden changes in school-work are to be deprecated. A sudden burst of fiery zeal is almost always followed by a frosty reaction.

A word must suffice about the teacher's reading. The habit is one of great value to him not only in making him acquainted with the work of teachers in the past—this is the smaller gain; but in preventing his becoming narrow minded, in ridding him of that 'shoppiness' which clings more or less to most professions, and in affording a wholesome and pleasant means of recreation. It provides him also with an abundance of illustrations, and often adds to the life and clearness of explanations. Travel and the observation of men and things are additional means tending toward the same ends. Anything which will add to his 'culture in matters of general human interest' should not be lightly cast aside; and even a 'good reliable hobby' has very numerous uses.

Teaching, it is true, is a difficult art, but with the wish to succeed, by thoughtful study and patient practice, and the careful noting of the lessons of experience, it can be acquired in an eminently useful degree by almost every one; and the reward to him who is earnest in his work is well worth the expenditure both of time and of trouble.

A. *The Staffing of Schools.*

The teachers now recognised by the Education Department are, Code of 1882, (1) pupil teachers, (2) assistant teachers, (3) provisionally certificated teachers, (4) certificated teachers, (5) evening school teachers. The following are the Code requirements with reference to the staff of a school :—

It is one of the conditions of grant that the principal teacher shall be certificated ; there are, however, several exceptional cases. (See Code 1882, Art. 93.)

'In estimating what is the *minimum* school staff required, the Department considers the principal certificated teacher to be sufficient for an average attendance of sixty, each additional certificated teacher for an average attendance of eighty, each assistant teacher or provisionally certificated teacher for an average attendance of sixty, each pupil teacher for an average attendance of forty, each candidate for a pupil teachership, on probation under Article 40, for an average attendance of twenty.'

'In mixed, girls', and infant schools a woman over eighteen years of age and approved by the Inspector, who is employed during the whole of the school hours in the general instruction of the scholars and in teaching needlework, is accepted as equivalent to a pupil teacher.'

'Where vacancies in the office of any teacher, other than the principal teacher, occur in the course of a school year, and are duly reported to the Department, temporary monitors employed in place of the teachers causing the vacancies are recognised as part of the school staff, one monitor being accepted as equivalent to a pupil teacher or candidate, and two monitors as equivalent to an assistant teacher or assistant certificated teacher, provided always that the vacancies are supplied not later than the end of the school year by the appointment of duly qualified teachers.'

'Teachers appointed in the course of a school year are, as a rule, recognised by the Department only from the date at which their appointment is notified to the Department.'

'No grant is made to an infant class with an average attendance of more than sixty unless it is taught by a certificated teacher, nor to an infant class with an average attendance of more than forty unless it is taught by a teacher over eighteen years of age approved by the Inspector.'

A common misapprehension seems to exist as to what constitutes a completely efficient school staff so far as the number of teachers is concerned. The Code requirements are not put forward as indicating a sufficient staff for obtaining the best results, but as showing the lowest number of teachers which a school can have to escape a fine for defective teaching power. This 'starvation minimum,' as it has been called, should be exceeded wherever the funds of the school will admit. To teach 40 children continuously is more than ought to be expected of any young pupil-teacher. It is now held by many of the larger school boards, and by the better informed managers of voluntary schools, that a much more liberal provision must be made, if the schools are to do their work so as to give the maximum of intelligence and usefulness—if they are to give heed not only to the amount of information required for an examination pass, but also to those educational results which have been too long neglected. Professor Huxley's Committee reported to the London School Board, in 1871, 'that the minimum number of teachers for a junior or a senior school of 500 children should be sixteen—viz. one principal teacher, four assistant certificated teachers, and eleven pupil teachers; and that the teaching staff should be increased by one assistant certificated teacher and three

pupil teachers for every additional 120 children.' This is two pupil teachers over the minimum requirement for every 120 children. At the present time 'the School Board for London allows about one assistant or two pupil teachers for every 60, or fractional part of 60 children after the first 30, and other boards are equally liberal in their arrangements, by means of which thorough efficiency, and as a natural result increased grants are secured.'

The forty children per pupil teacher limit has been in force since 1859. The *Revised Code* of 1861 placed no limit upon the number of pupil teachers employed, so that the whole staff beyond the head teacher might be so composed. In 1871 the first *New Code* was issued, and next year the following article was added, to take effect after April 1, 1873, as one of the conditions:—'That not more than *four* pupil teachers are engaged in the school for every certificated teacher serving in it.' This number was subsequently reduced to three; in 1880 to two (to take effect March 1881); and now finally by Code of 1882 the number of pupil teachers recognised by the Department must not exceed three for the principal teacher and one for each certificated assistant teacher.

There is no doubt that in some, if not many, schools much power is lost by faulty distribution of the work; the teachers not having those duties assigned to them which they can best perform, or not being placed in circumstances where their work will tell with greatest effect.

B. *The Master.*

The chief school duties of the master are of four kinds—(1) organisation, (2) teaching, (3) superinten-

dence and conduct of work, (4) examination. How his time is to be distributed among these various claims will depend upon the size of the school, the general arrangements, and the kind of assistants he has.

He has first to arrange and distribute the school work in the most effective way. He should lay down periodically a certain syllabus of study, and let each teacher know definitely, not only what duties are required of him, but what work his class will be expected to master by a given time. To prevent loss of time each teacher should keep by him and make himself acquainted with the portion of the time table which more immediately concerns him.

In a school of moderate size the master has not only to superintend the working of the school, examine into the work of his subordinates, and give occasional lessons to the various classes, but hold himself responsible also for the teaching of one special section. This should be by all means the most advanced. Careful logical teaching is here necessary, to train the children to think clearly, rapidly, and correctly, and the master, as the most skilful and accomplished teacher, can do this most efficiently. Further, it is here that the disciplinary influence arising from contact with the master will tell with greatest effect, and go a long way towards forming that healthy public opinion and respect for authority, which tell so powerfully upon the whole school when they obtain among the elder pupils.

In very large schools, while the master should give as much attention as possible to the teaching of the higher classes, he will be unable to carry on the whole working of any one group, and should limit himself to

the more important lessons. Much more time will need to be spent in the work of general arrangement and conduct, in the supervision and testing of the work of his assistants, and in giving lessons here and there as he finds he can best make his teaching tell.

Though the master may expect the co-operation of his assistants in all matters which further the interests of the school, he should hold himself directly responsible for all inflictions of corporal punishment, the inspection of home lessons, the dealing with late-coming, attention to absentees, the daily review of the children as to cleanliness and neatness, and all communications with the parents. In dealing with parents much circumspection is needed. It is highly important to secure their goodwill and co-operation. The way in which the teacher is spoken of at home has much influence on the behaviour of the child at school. Directly or indirectly parents get to know, at least, any defects in the management of the school, are often very unreasonable, and inclined to magnify small matters. The master should listen patiently to any complaints, and, if they are of real moment, should do his utmost to remedy the defect; if frivolous, he should point out to the parent the mischievous effects paltry complaints are likely to have on their children. He should make it clear that school rules have been carefully framed, and must not be broken; but while he firmly adheres to what he thinks right, he should treat a parent who differs from him with courtesy. Any off-hand assertion of authority, or loss of temper, is sure to damage his reputation, and that of the school. An offended parent may do much mischief. In particular cases the master may do well to call upon the parents, and he should bear in mind that in

many instances he has to convince and influence them in order to effectually reach the boy.

He should not be so burdened with teaching as to be worried by the impossibility of performing his duties efficiently. He should not be hampered by a great number of minor rules and regulations, and while he should be ever ready to accept suggestions, he should not have the plans of others forced upon him without his being consulted in the matter. If useless and troublesome restrictions are laid upon him, it is his duty courteously but clearly to point out the evil consequences likely to ensue. He should be the last person to raise the standard of rebellion. If he wishes his subordinates to yield a loyal and rational obedience to his behests, he should listen to anything they may have to say, and be in this, as in other matters, an exemplar of his own doctrines.

c. *Adult Assistants.*

Where several assistants are employed each should be made responsible for a certain group of children, and one or more of the younger pupil teachers, as required, associated with him in the work. The assistant should not only take his share in the teaching, but should superintend and direct the labours of his younger brethren. The most difficult oral lessons and explanations he should reserve for himself, and where two classes can be united for these the pupil teacher should be allowed to stand by and see the lesson taught, and take notes of any special devices. Occasionally such lessons may be entrusted to the pupil teacher, after he has made careful preparation, the assistant or master acting as critic, and making sugges-

tions or pointing out defects after the lesson is finished. So far as the teaching is concerned, each group should be taught pretty much as though it were a small school in itself, the conditions of work being simplified.

As the care of the higher classes should be the special work of the master, when he takes any particular section of the teaching, so the lowest section of the school, as being the next post of difficulty and importance, should be given to the most skilful, suitable, and energetic assistant. The work at the bottom of the school needs a teacher of cheerful, patient, vivacious temperament, gifted with much skill in fixing attention, and in presenting facts in a vivid and interesting way to little children. It is a very great mistake to give the lowest group of children to an inexperienced or unskilful teacher. The middle classes of the school are much the easiest to teach, and any want of care and skill does not tell so prejudicially here as either above or below.

An assistant should not be too full of his own plans, but ready to defer to the superior knowledge and experience of the head-master, to whom he should look up as to an elder and more skilful brother whose advice is valuable. He should do his best to further the aims of the latter, endeavour to enter into the spirit of the duty required, and honestly try to carry out the general design of the school work. On the other hand, the assistant should be treated as a friend. The master's dignity should be felt, not seen, and if matters are properly managed there will be cordiality between the two without undue familiarity. The latter is likely to lead to the assistant taking liberties, freeing himself from control, and becoming disrespectful in manner. Any suggestions of improvement,

however, he may make should receive attention, and any promising plan he may wish to try with his own section should receive the master's sanction.

The work of the assistants should be regularly supervised and periodically tested, not as though the master doubted their skill or industry, but simply as a part of a regular system of inspection and examination applying to the whole school. Defects should be pointed out to them, and remedies suggested. At the same time they should receive full credit for their successes.

D. *Pupil Teachers.*

The pupil teachers should be placed according to teaching ability, power of command, and experience. They should not at first have the entire care and responsibility of any class. Their work should be graduated as far as possible, so as to become of a more educative character, and increase in difficulty and freedom from year to year. To give a young teacher a class of fifty or sixty children, require him to work the whole day, perhaps in a close room, scold him if the boys do not make progress, and expect him besides to make good headway with his own home lessons, is to strain both body and mind; to destroy all liveliness, and produce a jaded irritable being who is disgusted with his work, whose interest in methods has all gone, and whose only notion of teaching is that of a dull never-ending mechanical grind.

The master should not let anything interfere with his duty to teach the pupil teacher his business; even on the very lowest grounds of securing good results, economy of labour and time, and avoidance of trouble, it will pay to give attention to the training of a pupil

teacher. The great thing is to arouse and foster in him a liking for his work, to interest him in teaching, and in children. He should be trained to steadiness of purpose, and encouraged under difficulty; should not have tasks assigned him too great for his strength; opportunities should be afforded him of seeing lessons skilfully taught, and his own efforts should be privately criticised in a kindly and suggestive spirit. He should be taught to hold in detestation all flimsiness and sham, whether of an intellectual or moral kind, and made to feel the value of uprightness, earnestness, and resolution. He should not be subjected to too many restrictions, and he should be led to see that continued progress is necessary. We do not want to make him an exact epitome of ourselves, rather an intelligent disciple, who, with increased advantages, may eventually carry on the work to a point beyond that which we ourselves have reached. Much of the master's influence upon the character and success of the pupil teacher will depend upon the way in which he is treated when off duty; the interest taken in him, the chats about his tastes and pursuits, the indirect word dropped at a suitable moment, and the consistency of the treatment to which he is subjected both in and out of school.

Great care and discrimination need to be exercised in the *selection of candidates*. Many of the difficulties of the teacher arise from his having accepted hastily some boy, it may be of quick parts, but quite unsuited to the work of teaching. Good health and spirits, general intelligence, and an earnest, upright, teachable character, are essentials; then come sympathy with little children, aptitude in managing them, attainments and interest in study, and desire to learn to teach General vigour of disposition should also have some

weight: a boy of influence in the playground, skilled in games, and to whom his companions defer, will often, if suitable in other respects, make the best of teachers. Home circumstances and influences must always be taken into account.

Wherever it is possible to free the pupil teacher for a short period each day from duty with a class it should be done. The time spent in study will be a rest from his ordinary labours, and give encouragement to the formation of a reading habit.

The home studies of the pupil teacher should receive careful attention. Regularity of study should be insisted upon, and encouragement given to the thorough mastery of the necessary subjects. Much time is often allowed to be spent on advanced studies before the rudimentary ones have been at all soundly learned. This generates a taste for novelty, a superficiality of work, and a disinclination to continuous effort at one thing; all of which prove hindrances to real progress. The instruction by the master should be given on some well considered scheme. There should be frequent written exercises, and test examinations should be given at short periods. Many a young teacher, who is creditably acquainted with his work, does badly at the annual examinations from want of experience.

Recently a system has been tried in some places of instructing the pupil teachers from several schools at one centre, by a series of teachers for the various subjects. So far as this is intended merely to save each master's labour, and be a substitute for his instruction to his own teachers, it is surely a mistake. As an additional means of help, and with special provision of instruction, it may have its uses.

With reference to the study of the professional side of the work, one or other of two mistakes is very frequently made. Either the young teacher receives no instruction at all in method, or an advanced treatise is put into his hands from which he is unable to select the few plain directions he wants, and which proves a source of bewilderment rather than help. The first code of instructions should be drawn up by the master himself, embodying only a few of the most important points, which will serve as a ground work, or concerning which mistakes are likely to be made. Any teacher of experience will readily be able to frame such a code for the use of his pupil teachers, in accordance with his own views. The following may be of use as an illustration of what is meant.

Suggestions for Pupil Teachers.

I. Class Management.

1. Strive to govern by the eye, not the voice. Stand well back from your class so as to see every boy. Have dull, backward, and restless boys in front. Separate mischievous children.

2. Give as few orders as possible, but be firm in having them promptly and thoroughly obeyed when given. Try to impress children with the respect due to law.

3. Good discipline is impossible with children unemployed. Allow no waste of time in beginning.

4. Avoid speaking in a loud blustering tone. Be ever on the alert, and warn where necessary. Do not scold, and never threaten.

5. Give careful attention to details. Know your boys.

6. Never sneer at children. Be cautious not to damp their natural ardour and gaiety.

7. Authority should be felt not seen. The need for

much punishment means, in nearly all cases, weak handling If children are troublesome look to yourself first.

II. Teaching.

1. Distinguish clearly in teaching between the means and the end. In class teaching every boy must receive individual attention.

2. Do not hurry; much good work is spoiled by being scampered over.

3. Try to make children think; do not rest content with loading the memory.

4. Do not waste time in long introductions. Recollect there should be a proportion of parts in every lesson.

5. Let your teaching be varied, not only to keep up interest, but that you may reach every boy's mind by some means.

6. A good teacher is constantly a censor of his own work. Bear in mind you are forming good or bad teaching *habits.*

7. Attention must be obtained principally by interest, manner, and work; it cannot be secured by a mere exercise of authority.

8. Remember that the black-board is a great help in nearly all lessons.

9. Learn to detect by the appearance of your class whether the children are in sympathy with and following you, or not.

10. Practise all the teaching devices, use none exclusively. Strive earnestly to attract sympathy and attention from your class. Interest the children, and endeavour to take every one with you.

III. 'Object' Lessons.

1. Take care that you have a clear aim in view; remember these lessons should be especially *educative.*

2. Distinguish carefully between important and unim-

portant facts. Connect your information as much as possible with a few leading truths.

3. Avoid too wide a range; keep to the view you take so as to preserve the unity of your lesson.

4. Wherever you can do so, *without roundabout teaching*, question the facts from the children, group, and summarise them.

5. Do not overload your lesson with facts; look to the sequence of your work; and avoid wandering from your subject.

6. Thoroughly illustrate your lesson. Compare and contrast objects where possible: discrimination of differences, and discovery of agreements, are valuable means of training.

IV. Scripture.

1. A Scripture lesson is a difficult one to teach, and hence will need thorough preparation. Remember that it should not be a mere history lesson.

2. Endeavour to make boys *feel* the practical lesson rather than learn it as a matter of mere information.

3. Be careful to have a distinct object in view, and let every part of the lesson tend towards this.

4. Where the lesson will admit of it sum up by a suitable text.

V. Reading.

1. Be careful to arrange boys well, and stand well back from your class.

2. Do not attempt too much; remember that hearing boys read is not teaching reading.

3. In simultaneous reading be very scrupulous to have exact imitation of the teacher; beware of allowing sing-song.

4. Have words said before they are spelled; syllable words on the black-board; compare similar words. In the lower classes give phonic exercises.

5. Allow mutual correction, and constantly appeal to the black-board in the case of difficult words.

6. Explanations should be sufficient but brief; a reading lesson is not to be made an 'oral' lesson.

VI. Writing.

1. Teach, do not merely examine; constantly appeal to the black-board for corrections, &c.

2. See that instructions respecting posture are not only given, but carried out.

3. Make boys show books every few lines, and carefully correct errors.

4. Look to improper spacing, bad joinings, irregularity of size, and incorrect formation of the letters.

VII. Dictation.

1. In this lesson spelling should be taught, not merely examined; hence some preparation of the words should have been made before giving out.

2. Leave at least half the time for *detection* and *correction* of mistakes.

3. Do not 'give out' the spelling for boys to correct from; let them have something to *see*.

4. Be especially careful about *correction* of errors.

5. Be very watchful to prevent copying.

VIII. Arithmetic.

1. Be careful to ascertain before commencing to teach that every boy has the necessary materials.

2. Arrange the class so as to have backward boys in front; give these a large share of the black-board work and of individual help.

3. Look to the grouping of figures into threes in notation.

4. Insist upon a uniform method of working in teaching subtraction. Avoid the 'borrowing and carrying' plan.

5. Distinguish between lessons intended to teach a new rule, and lessons of practice.

6. Be especially watchful and cautious about discipline; endeavour to render copying impossible. As a rule let adjacent boys have different sums.

7. Make frequent use of the black-board for illustrations, but as a rule dictate examples to be worked.

IX. Grammar.

1. Remember this is a difficult subject to little children; and that the teacher should therefore do his utmost to render the teaching simple, clear, and interesting.

2. Proceed from known to unknown. In teaching the parts of speech give words first, then the name of the class, then the definition.

3. Constantly refer boys back to the definitions as *tests*. Give plenty of exercises.

4. Teach the rules thoroughly, and let them fix themselves in the children's minds before giving lists of exceptions.

X. History.

1. Distinguish carefully between important and unimportant events.

2. Connect facts carefully together; many lessons are of little value from being mere collections of fragments.

3. Teach by vivid lecture in portions, with thorough examination by questions at the end of each, and carefully sum up the principal points.

XI. Geography.

1. Bear in mind that one great and common evil is the teaching of *words* instead of *ideas*. Teach *geography*, not mere names.

2. It is useful to draw a blank map on the black-board for teaching, and then to use the printed map for examination.

3. Let descriptions be vivid but truthful. Carefully sum up and impress the important facts.

E. *Monitors.*

Though not now officially recognised by the department, except to supply until the next inspection a deficiency which has arisen in the school staff in the course of the school year, monitors may be occasionally employed with much advantage in schools where the teaching staff is small. The principal conditions to be borne in mind in their use are: (1) that they should be employed for short periods only, so that their duties as teachers may not interfere with their work as pupils, and may be viewed in the light of a reward; (2) that they are put to suitable work, as hearing repetition of tasks, helping dull individuals, giving out dictation, hearing reading of lower classes, and examining written exercises; (3) that their work is always under the direct supervision and control of one of the regular teachers, and that they are instructed how to perform the duty required of them.

In small schools, where the number of teachers is necessarily limited compared to the number of standards, *paid monitors* would often form a very useful help to the recognised staff of teachers; and the gain from their use would in most cases probably lead to an increase in the grant sufficient to cover the expense of employment.

CHAPTER V.

THE ARRANGEMENT OF TIME AND SUBJECTS—TIME TABLES.

EVERYONE knows how much more can be done when a distinct plan is kept before the mind, than when work is taken up in a hap-hazard, desultory way, even when the labour is as severe and long continued in the one case as in the other. We do not spend our strength and time vainly on things of little importance; each part of the work needing attention falls into its natural place, and has due weight assigned to it; we do not allow ourselves to be governed by our likes and dislikes, as we are very apt to be unconsciously; nor have we to stop and think what it were best to do next. All is orderly, all is useful; the machinery is carefully adjusted, the friction is reduced to its lowest point, there are no jerks, no stoppages, and the work is consequently performed with the least amount of strain and the greatest measure of success.

A well considered and carefully arranged scheme of work is invaluable in school: it prevents a large waste of time, it portions out the work so that every faculty is exercised in the best way, and none disproportionately; it secures that no subject is neglected, and arranges the most suitable time and place for

each lesson; it confines the attention to one thing at once, prevents undue digressions, and settles the limits within which the teacher has to accomplish each section of his instruction; it has a moral value from the encouragement it gives to habits of order, regularity, steadiness, and attention to duty at fixed periods; and it aids the discipline directly by the distribution of noise, by the prevention of trouble and confusion at the changes of lessons, and by lessening the need of punishment for faults arising from lack of employment.

A. *General Considerations.*

1. The first things perhaps that strike the attention in considering the drawing up of a time table are the **subjects to be taught.** Placing religious instruction apart, the three rudimentary branches—reading, writing, and arithmetic—stand first in importance; then come the class subjects—grammar, geography, and history; then extra subjects, such as the specific subjects of Schedule IV., singing, drawing, and in the case of girls' schools needlework. Before we can commence to distribute the work into portions, we must consider the relative importance of each subject at each stage of progress, and hence the amount of time to be given to it. It will be found that under ordinary circumstances reading requires most time in the lowest sections; that spelling—to which it is important to give great attention at this stage—comes next; and then arithmetic, writing, &c. In the highest section arithmetic should have most time allotted to it, then reading, spelling, and the class subjects. In the middle of the school the time to be

given to the different subjects will be more evenly balanced. We cannot well lay down any hard and fast line. Each teacher must examine carefully for himself into the existing conditions and capabilities of his children, and be guided accordingly. Religious instruction must be given at certain fixed times as required by section 7 of the Education Act of 1870.[1] In Board Schools 'no religious catechism or religious formulary which is distinctive of any particular denomination' may be taught. Music is best taken as a recreative break between lessons of severer character.

2. Another consideration of primary importance is the **internal circumstances of the school**—the number and size both of the classes to be provided for and of the rooms at disposal, the number and quality of the teachers, and the disposition of the fittings and furniture. Each of these subjects has already received separate treatment. We have to settle the locality of every class during each lesson-time, bearing in mind the quality of the work to be performed. Arithmetic, for instance, is best taught in desks, reading on the floor, oral lessons on the gallery in a class room, and so on.

3. The **sex of the scholars**, the **mode of attendance**, and the **length of the school times**, will also modify our plans. In the case of girls' and mixed schools we have to provide for sewing and other lessons, which have not to be taken into account in the case of boys; infant schools will need a quite different arrangement from others; and the presence of half-time scholars will necessitate numerous changes, if such scholars are to receive a fair share of attention

[1] See 'Regulations' given pp. 241–44; and Sect. 14 of the Education Act, 1870.

in all subjects. Generally some attend during one part of the day, some during the other, and in such cases all the subjects will need to be provided for during the mornings and also during the afternoons of the week.

4. **The length and succession of lessons,** again, are points needing careful attention. In deciding the length of time to be given at once to each subject, we must bear in mind the demands which it makes upon the brain, and the age of the children as indicating their ability to bear the strain of continued work of one kind. These considerations will lead us to place the most exhausting lessons early in the day, or directly after recreation, and so to distribute difficult and easy portions of the work—those requiring thought, and those needing mainly mechanical dexterity—that they may afford variety and relief. A lesson demanding the use of one set of faculties should be followed by one calling into requisition powers of a different kind ; change is rest. Younger children should also, as far as possible, have shorter lessons than older ones. Of course we must not expect to be able to construct a perfect time table ; many practical difficulties stand in the way ; the thing is, to make the most suitable arrangements the circumstances will permit, bearing in mind the necessities of the child as well as of the work. Twenty minutes is long enough for lessons to very little children, half an hour for general lessons to older children ; though where the upper section of a large school is worked separately three-quarters of an hour may be allowed. It is in nearly all cases useful to have one longer lesson each school time, and in some instances a lesson for older scholars may occupy the

time of two lessons to the younger ones. We cannot but consider the hour lessons—so common in some countries on the continent—a mistake, except for the oldest and most advanced of the scholars. What we should aim at is so to allot our time as to train to continued application, without going to the extent of producing weariness.

Children can only assimilate knowledge at a certain rate—that is, not only take it in but so realise its meaning that it becomes a useful acquisition. One of the commonest mistakes is to think, that by giving twice as much time to a thing a child will make twice as much progress. Every teacher, who will take the trouble, may soon convince himself that this is not so; that do all we can, even by the most skilful teaching, a child will only take in so much of one subject in a given period, and that all the rest runs to waste. The mind, like the body, needs time to digest one portion before the next is presented to it. This should show us how ill advised are long lessons for young children, and how utterly barren and useless to the child himself is the great bulk of the matter so often crushed into the mind just before the examination day, and which should have been spread over a long previous period. It is not meant that the fault arises from the defective method of teaching (this *may* have been the best of its kind), but from the absolute inability of the child to assimilate the amount in the space of time allowed. Can uncertainty, confusion, and error under such circumstances be wondered at? This is a subject which deserves much more extended observation than it appears to have received.

5. In order that the teaching may proceed with

little hindrance, the **noisy lessons must be distributed** over both the time and the space; and arrangement made whereby those lessons which require continuous attention may be taken in the class room, or where there is little disturbance from other work. Simultaneous reading should not be allowed in a room where other work is going on, unless this is of some silent kind, as writing.

6. It is very necessary, also, if the maximum of work is to be obtained from children, to provide for **due change of posture and place.** Sitting and standing should, as far as it can be arranged, be made to alternate one with the other. To cover the whole of the available space with desks, and keep the children sitting the whole school time, is far from a wise proceeding. Changes of place, necessitating as they do a certain amount of noise and loss of time, should extend to as little distance as can be conveniently contrived.

7. Other points needing consideration are **play, marking of registers, home lessons, review,** and **examination.** Proper provision for recreation should always be made. It is false economy to deprive children of their few minutes' play, not only on account of the opportunity it affords for changing the air of the room, but also from the increased vigour of the succeeding work.

In the 'Instructions to Inspectors,' 1871, it is stated that 'any interval allowed for recreation in the time prescribed for secular instruction must not exceed—

1. *For infants under seven.*—Half an hour in the course of a school meeting of two and a half hours and upwards, or a quarter of an hour in a shorter meeting.

2. *For children above seven.*—A quarter of an hour in

the course of a meeting of three hours, or from five to ten minutes in a shorter meeting.'

Most teachers set apart a special time for the examination of home lessons, but much time may be saved by giving on certain days such home lessons as can be examined by, or during, one of the next day's lessons. Book work may sometimes be examined by teachers freed by the grouping of certain classes for Scripture teaching or other oral lessons.

The time for marking registers should immediately precede the two hours' secular instruction ; five minutes will generally be sufficient.

Provision should by all means be made for regular lessons of review. Much unnecessary work is entailed by the neglect of this. One of the secrets of success is regularly to run over back work, so as to keep it fresh in the children's minds. This is especially valuable in subjects where many facts have to be remembered. Time should also be allotted for the examination of the whole school by the master; say one of the ordinary subjects each week, and a general examination, including the class and specific subjects, once a month.

B. *Method of Proceeding.*

Bearing in mind the above considerations, the next thing is to divide the time into separate lesson portions, and assign a subject to each. The number of working hours per week should be determined, and the time subtracted which is occupied in assembly, dismissal, religious instruction, register marking, play, &c. The remainder shows the hours at our disposal for the ordinary lessons. Having settled the length

SPECIMEN OF THE GENERAL ARRANGEMENT OF TIME TABLE

Classes	9'0 to 9'10	9'10 to 9'45	9'45 to 9'55	9'55 to 10'0	10 to 10'30	10'30 to 10'55	10'55 to 11'10	11'10 to 11'35
1 a	Assembly, &c.	Religious Instruction	Examine Home Lessons, &c.	Mark Class Registers	Arithmetic (10 m. mental)		Recreation in Playground	Reading
1 b								
2 a					Reading	Dictation		Arithmetic (5 m. mental)
2 b								
3 a					Arithmetic (5 m. mental)	Reading		Geography (M., W.) English (T., Th.) Obj. Lesson (F.)
3 b								
4 a					Arithmetic (5 m. mental)	Geography (M., W.) English (T., Th.) Obj. Lesson (F.)		Copy Books
4 b								
5 a					Obj. Lesson (M., W., Th.) Geography (T.) Spelling, &c. (F.)	Reading		Arithmetic (10 m. mental)
5 b								

N.B.—The class subjects selected are supposed

A SCHOOL OF ABOUT 170 (WITHOUT INFANTS).

35 to 12·0	12·0		2· to 2·10	2·10 to 2·45	2·45 to 3·20	3·20 to 3·30	3·30 to 3·40	3·40 to 4·15	4·15 to 4·25	4·25 to 4·30
ctation . & W.) nglish & Th.) Review (F.)	Dismissal	*Interval*	Assemble and Mark Class Registers	Geography (M., W.) Specific Subject (T., Th.) Oral Lesson (F.)	Copy Books (M., Th.) Mapping (W.) Drawing (T.) Composition (F.)	Recreation in Playground	Singing	Reading (M.) Dictation (T., F.) Geography (Th.) English (W.)	Set Home Lessons, &c.	Dismissal
ography M., W.) nglish ., Th.) Lesson (F.)				Arithmetic (M., T., W., Th.) Spelling & Review (F.)	Composition (F.) Reading (M. W. Th.) Drawing (T.)			Copy Bks. (T., W., Th.) Geography (F.) English (M.)		
ctation				Geography (Th.) Arithmetic (M., T., W.) English (F.)	Reading (M., T., W., Th.) Spelling, &c., (F.)			Copy Bks. (M., W., F.) Dictation (T.) Drawing (Th.)		
eading				Dictation (Th.) Arithmetic (M., T., W.) Spelling, &c. (F.)	Reading			Dictation (M., T., W., F.) Drawing (Th.)		
ctation				Reading & English	Arithmetic (M., T., W., Th.) Drawing (F.)			Copy Books		

: Geography and English (Code 1882).

of the various lessons and distributed the time, we now decide, for each class in turn, how many lessons are to be given per week to each subject; and, remembering the needs of supervision, the distribution of noise, the difficulty of the work, &c., we proceed to arrange the order of the various subjects for each day. It will be found convenient to take the subjects which come every day at the same hour through the week, keeping certain suitable periods for the less frequent, but perhaps equally difficult, lessons. Thus lessons in two or more similar subjects of this sort may come at the same time every morning or afternoon, the subjects alternating. Any disposition of this kind simplifies the construction, and facilitates the remembrance of the various items. The accompanying time table is given as an example of the mode of arrangement advocated.

The use of 'ill-adjusted time tables' has been a frequent source of complaint. No time table can be constructed to suit all schools, even of similar size, as may readily be seen from the various considerations; hence each teacher must acquaint himself carefully with the circumstances, and make out his own scheme of work. He should not have a time table forced upon him by outside authority, nor should he adopt one wholesale which has been tried elsewhere, no matter how successful. Other time tables may suggest and occasionally aid a new arrangement, but as originals from which copies may be taken they should not be used. The consideration, that knowledge of the conditions is necessary to successful planning, should also restrain a teacher, when he goes to a new school, from at once altering the time table, bad as it may seem. He should wait till he has learned more

about its working; he may then find it not so bad as he thought, and at least he will found his reform upon sure grounds and so avoid the need of tinkering. In addition to the time table the master should draw up periodically (say monthly) a short syllabus of study for each class, and with the portion which concerns him each teacher should make himself well acquainted. This should serve as a guide to the work for the period, and as the basis of the monthly examinations. A scheme of this kind prevents the teachers from taking up various parts of the work in an irregular disjointed way, and it enables the master to test with certainty that upon which the teacher has spent his strength.

c. *Government Regulations respecting Time Tables.*

Various regulations respecting time tables have been issued from time to time, more especially with respect to the working of Sec. 7 of the Education Act 1870, which says:—

'Every elementary school which is conducted in accordance with the following regulations shall be a public elementary school within the meaning of this Act, and every public elementary school shall be conducted in accordance with the following regulations, a copy of which regulations shall be conspicuously put up in every school, namely:—

1. It shall not be required as a condition of any child being admitted into or continuing in the school, that he shall attend or abstain from attending any Sunday school, or any place of religious worship, or that he shall attend any religious observance or any instruction in religious subjects in the school or elsewhere, from which observance or instruction he may be withdrawn by his parent, or that he

shall, if withdrawn by his parent, attend the school on any day exclusively set apart for religious observance by the religious body to which his parent belongs.

2. The time, or times, during which any religious observance is practised, or instruction in religious subjects is given at any meeting of the school, shall be either at the beginning or at the end, or at the beginning and the end, of such meeting, and shall be inserted in a time table to be approved by the Education Department, and to be kept permanently and conspicuously affixed in every schoolroom; and any scholar may be withdrawn by his parent from such observance or instruction without forfeiting any of the other benefits of the school.'

The following points are selected and condensed from the several minutes and circulars respecting time tables, with which each teacher should make himself acquainted :—

1. The time table of a public elementary school must be 'submitted to the inspector of the district at every visit he pays to the school.'

2. The inspector may approve any time table which sets apart, at least, the minimum time prescribed by the code for secular instruction. The secular instruction must be continuous and under the personal supervision of the principal teacher.

3. The religious instruction may be 'given in the class room to separate classes or divisions of the school either at the beginning or end of the meeting; and the time of secular instruction need not be the same for the whole school' *if there is a class room attached to the school.*

4. Before signing the time table the inspector must satisfy himself—

(*a*) 'That a copy of the regulations contained in sec. 7 of the Education Act (1870) is conspicuously put up in the school.

(*b*) That the time table is clearly written or printed, and a copy provided for every schoolroom.

(*c*) That, if the school premises admit, children who are withdrawn from religious instruction receive instruction in secular subjects by themselves during the time set apart for religious instruction or observances.

5. Any five parents or guardians may complain to the department if an approved time table is not in accordance with these minutes.

6. 'Her Majesty's inspectors ought not to interfere with the responsibility of managers and teachers for the details of school work. The efficiency of their arrangements will be tested by the results produced at the annual examination;' but the inspector may 'point out any serious objection to a time table' presented for signature.

7. 'If the time table does not show the classes and subjects entrusted to the pupil teachers, and the time given by the principal teacher, during school hours, to their technical instruction in the art of teaching, those particulars ought to be entered in the log book, and inquiry should be made' by the inspector at the time of his visit 'as to how the arrangements so recorded are carried out in the daily work of the school.'

8. No change may be made in the time for religious instruction 'without the express sanction of the inspector. This sanction ought not to be given in the course of a school year, except upon formal application from the managers, nor unless strong grounds for the change are shown.' Any neglect 'will entail a forfeiture of grants.'

9. 'So far as the distribution of the time devoted to *secular instruction* is concerned, the case is different, as the approval by the Education Department, required under sec. 7 (2) of the Elementary Education Act does not apply to such distribution of time. A time table, however, for all subjects taught is necessary to secure order and regularity in the daily work of a school, and when once settled ought to be adhered to. It otherwise ceases to be of any use for

the information of the parents, or to be a guide to the inspector in forming his judgment of a teacher, or in examining a school.'

10. Permanent alterations of the *details of secular work* should be specially noted in the log book 'by the correspondent,' and a copy of the corrected time table inserted. Occasional deviations should be noted 'by the teacher'; 'if frequently resorted to without good reason, they must be regarded as a proof of the teacher's inefficiency, and may cause the grant to be reduced.'

11. 'So far as the hours of secular instruction are concerned,' the inspector 'will note in the log book, for the information of the managers, every case in which he finds a school not being taught according to the ordinary time table, unless there is a record in the said log book of the reason why the order of instruction set forth in the time table has not been observed.'

CHAPTER VI.

APPARATUS AND BOOKS.

THE term apparatus includes all the various materials made use of by teacher or scholars, in order that the work, both of teaching and of learning, may receive all the help which the best tools and labour-saving appliances can give. By his words the teacher appeals to the ear, by the use of apparatus to sight; and it has been previously remarked how much this double appeal conduces to clearness of impression and retention by the memory. Apparatus thus properly covers not only the ordinary teaching instruments but books. The latter, however, are of sufficient importance to be treated by themselves. Skilfully used, good apparatus facilitates instruction, reduces the expenditure of energy, and largely increases the success with which the work is performed.

We frequently hear school requisites spoken of as though goodness and costliness were synonymous; there is no necessary connection between them. The money spent in making the things showy is often spared from more needed qualities. Good apparatus is very necessary in schools, and to be of most use should be plain, strong, and exactly adapted to serve its purpose; beyond a certain point ornament means in most cases increased liability to injury. The

tendency to make teaching appliances needlessly expensive has grown considerably of late years. Nevertheless, while it should be recognised that very ornamental apparatus is an extravagance, it should equally be remembered that very cheap things are rarely, if ever, economical. They are almost always flimsily constructed, of the very poorest materials, and display the worst workmanship, an attempt being made to cover the defects by mere outside attractiveness.

Every teacher must feel that there is often much waste and excessive wear and tear, from the defective care or the rough usage to which the apparatus is subjected: pens, paper, or slates, not properly collected; blackboards cracked by being tumbled about; maps with the rollers half torn off; reading cards with the corners all doubled up; and so on. Nor is the wastefulness the only evil; recklessness in using the property of others is a bad habit to encourage in children. Monitors or junior teachers should always be appointed to look after the ordinary appliances. They should also be periodically inspected by the master, and any damage seen to. A stitch in time will often save nine here. In teaching, apparatus should be carefully kept to its proper place; it is a means only, and must be used as such. Elaborate appliances are very apt to attract the attention of a child to their looks rather than their use, and to cover out of sight the points intended to be illustrated.

A. *Kinds of Apparatus.*

1. **Blackboards.**—These are of four principal kinds: (1) boards fixed to walls; (2) boards for use

with easels; (3) swing boards; (4) sliding boards. *Boards fixed to walls* are useful when they can be conveniently placed with regard to the classes, and when a large writing space is required. In some cases prepared cloth, or smooth and hard plaster properly prepared, is in use. The *ordinary boards* may either be plain or framed. The former should be made of thoroughly well seasoned pine, and tongued with iron strips; the latter may be much lighter, should be framed with birch, and are suitable for infant schools or younger classes. Easels are of various forms; some with added supports for maps, &c. The square topped reversible easel is perhaps the most useful, though lighter forms are also of service, especially with little children. Pitch pine has lately come into fashion for easels; but this splits more readily, and is much more likely to give way, especially at the hinges, than good American birch. Both woods need to be well seasoned to prevent warping. There should be a pointer supported by two rings at the side of the easel whenever the latter contains a map support, and always a small attached box for chalk. *Swing boards*, or large slates, are valuable where there is not much necessity to move them to any distance. Slates afford a good surface to write upon, and clean more readily, but are more liable to break, than boards. Means should be provided for fixing the board at any required slope. Occasionally a small swing board is made so that the support can be raised or lowered as needed, and the board be turned into a horizontal position. Placed in this way it may be used as a small table for the exhibition of specimens, experiments, &c. *Sliding boards* are generally larger than the ordinary boards. They are exceedingly convenient

to use when well balanced, but they are expensive, occupy a good deal of space, and should be kept pretty much to one place. The preparation for coating the boards should not give a smooth greasy surface like paint, nor a rough gritty surface like emery cloth. Liquid slating is much in favour in some parts of America and elsewhere, and is occasionally used in England. It is sometimes useful for walls, but generally gives too rough a surface for pleasant working, and increases the amount of dust. The ordinary square chalk is better than the tapered crayons prepared for blackboards; the latter have a kind of greasy touch in writing, and are more difficult to erase. *There should be a blackboard for every class in the school*: one should be ruled for music lessons, and another with lines for writing, as in Mulhaüser's system.

2. Maps, Diagrams, and Pictures.—These serve a double purpose: they act as valuable means of illustration in teaching, and also help to give the room a cheerful and pleasant aspect by ornamenting the walls. There should be a good supply of maps; including a plan of the parish, and a map of the county. Most of the maps prepared for school use contain far too many names, and the excess of detail destroys the necessary boldness.[1] They frequently approach what a good library map should be, and are thus quite unsuitable for class teaching. The colouring is in many cases crude and unpleasant, and far too positive in tone. Maps without names are very useful for purposes of oral examination. Relief maps are much used in Germany, and, if well constructed, are valuable in

[1] The maps recently published by the National Society are free from this defect, and are in many respects excellent.

special lessons; but they are expensive, and need great care to preserve them from injury. Maps outlined in white on a slated surface which will take chalk are sometimes employed, after the Swedish plan, instead of sketching on blackboard.

The diagrams in common use contain far too many things on one sheet, and hence distract the attention. They are sometimes, also, too small to be of much use. A good set of plain moderately coloured physiological diagrams should be found in every large school. Some drawings of common machines will be useful for special lessons; as well as a few good-sized and boldly drawn botanical diagrams. There should be a modulator for singing. In girls' schools, needlework demonstration sheets will be found advantageous for use with beginners; or better still, perhaps, the demonstration frame as used in Germany, by which the mode of forming almost any stitch may be illustrated.

Pictures are very serviceable for teaching purposes, if suitable and well drawn. Many of those in use are badly outlined, false in details, and coarse and incorrect in colouring. These should be avoided. A plentiful selection should be provided of pictures of animals and plants, especially such as yield valuable products; as well as illustrations of Scripture narrative, manners and customs, English history, foreign scenes, races of men, natural phenomena, &c.

3. **Models, Specimens, &c.**—A good globe is necessary in school. It should be well mounted, but not so large as to prevent its being easily carried from place to place. An instrument for showing the relationship of the earth, sun, and moon is very useful, but need not be anything like as elaborate in arrangement as many of those sold. A tray with modelling

clay is made a great help to the teaching of geography in some schools.

Models of simple machines may often readily be made by the teacher as required, and should be preserved for future employment. A few, such as small models showing the essential parts of the steam-engine, the force-pump, &c., may be purchased; as well as, in large schools, a set of models illustrating the mechanical powers. There should also be provided a set of geometrical models and a terra cotta vase or two for drawing, a magnet, a mariner's compass, a large compass card, a clock face with movable hands, a prism, and a small microscope.

Every school should have its cabinet of specimens for object lessons: this need not be costly, and should contain examples of raw and manufactured materials, both animal and vegetable, common minerals, metals, &c. The objects may be mostly collected by the teacher and the children, with a few purchases here and there. The collections sold often contain unsuitable things which are never used, and many of the specimens are far too small to answer their purpose well.

4. Form, Colour, and Kindergarten apparatus.—In infant schools there will be needed, in addition to materials mentioned elsewhere, a box containing wooden models of various forms, a box of small wooden bricks, specimen cards and materials of different colours with a colour diagram; and, if the school makes use of the Kindergarten exercises, a box of gifts and suitable materials for the various employments, as papers cut for folding, strips for mat plaiting, sticks for stick laying, &c. The 'gifts' are: *first*, six woollen balls of different colours, three primary and

three secondary colours; *second*, a sphere, cube, and cylinder, of hard wood; *third*, a large cube divisible into eight small ones for constructive exercises; while the *fourth* to the *eighth* gifts consist of cubes variously divided into bars, smaller cubes, &c., and triangular and quadrangular wood tablets. The so-called gifts beyond these are really further exercises added by Froebel's followers.

5. Apparatus for teaching Arithmetic.—In addition to the blackboard much help may be obtained from the following: 'number pictures,' a ball-frame placed on a stand with one-half covered, a box of 144 small cubes for notation and tables, wall sheets of tables, cards of examples, models or diagrams of weights and measures, and a dissected cube for teaching cube root. In some schools a modified form of ball-frame is used, besides the ordinary one, for teaching numeration and exercises in addition and subtraction. In this case there are thirty-six balls on each horizontal wire, divided into nines by perpendicular bands; each column of nines being coloured differently, and the four groups standing for units, tens, hundreds, and thousands.

6. For Reading should be provided a large alphabet card; a letter box and frame, or better still, a *word-maker*,[1] after some of the French models; and reading cards with suitable stands.

B. *Books.*

Probably no class of books has developed at so rapid a rate of late years as that intended for school use. There is no lack of kinds to choose from, suited to almost all tastes and views as to how the work

[1] See Meiklejohn's *Problem of Teaching to Read.*

should be performed. Many of the books are also very attractive, but when we come to look somewhat deeper into their qualities they are not unfrequently disappointing.

The most important group is that of the *reading books*, embracing as it does now, not only ordinary readers intended as the means of teaching to read and a source of general information, but books devoted to class subjects intended to be taught through reading lessons.

The **general readers** should be constructed for the special purposes and needs of reading, and should not be miscellaneous collections of reading-lessons, arithmetic, drawing, grammar, home-lessons, and so on. They should contain plenty of matter, and be well graduated—especially in the early stages; should be varied both in contents and style, so as to secure interest, and provide fitting exercise for all the faculties; and should treat of subjects suitable to the age of children, be carefully illustrated, clearly printed, and strongly bound. To confine a set of books prepared for the teaching of reading to one subject, no matter how valuable, would be a great mistake. They are not text-books in the ordinary sense, and should not be treated as though they were. They form in most cases a child's first introduction to literature, and the wider the view which can be conveniently given, after other requirements are satisfied, the better. The extracts may be usefully taken from such books as are fairly accessible and may be wisely read through by children. The lessons should lead the child to take to reading as a recreation and amusement first, and later on as a means of acquiring knowledge.

The illustrations are often quite unsuitable. They need not be by any means elaborate, but they should be good of their kind. They should aid in the realisation of the story narrated, or the scene described, and exactly embody its ideas; unless they do this they are worse than useless, so far as their true purpose is concerned. They should be bold in design, well drawn, and suggestive rather than full.

The printing should be as clear as possible and not overcrowded, and the type should be sufficiently large to allow the child to read it easily at some little distance. The increasing short-sight among children is said to be partly due to badly-printed books.

General strength of binding is an important quality, not only on account of the increased durability and consequent less expense, but also from its effect upon the child's habits. It can scarcely be expected that he will take much trouble in preserving a book, which despite his efforts comes rapidly to pieces, and then seems no longer worthy of care. A dog-eared, dirty volume, with broken back and loose leaves, is a standing bad influence on a child, decreasing his respect for books, and rendering him careless in his treatment of them. Anything which will tend to prevent this is worth consideration.

We may conveniently group the special qualities of reading-books as follows:—

(*a.*) *The earliest, or conceptive stage.*—The books for this stage will need to be specially written, so as to secure the proper introduction of new words, and the repetition of those previously used. The ideas must be familiar, and such as are likely to interest little children. They must be expressed in a pleasant, simple, direct way, by short sentences, and be arranged

in lessons which can each be easily mastered in a brief period. A personal element should run through all the lessons, and a few pretty little poems, on such topics as can be readily appreciated, should be scattered here and there. In all cases the lessons should be as natural as possible, and a little beyond the child's mode of expression. Simplicity must not be confounded with silliness or babyishness.

(*b.*) *The middle, or interest stage.*—The reading-books of the second stage introduce the child to a much wider range of ideas; he has to make use of his own experiences to enable him to understand those of others. Many suitable extracts may now be found, but some of the lessons will yet need to be specially prepared, and lucidity both of thought and expression are still matters of great importance. Anecdotes, short moral tales, fables, deeds of heroism, adventures, descriptions of manners and customs, and of interesting objects will all be found useful. The great thing here is to interest the child in reading. The personal element may be less frequently introduced, but plenty of food must be provided at this stage for the imagination. There is frequently a good deal of affectation in the books of this stage, especially in the stories. Many of the latter either give warped ideas of greatness in human conduct, or encourage a sickly sentimentality opposed to all healthy moral feeling; and there is not unfrequently an artificial gloss, a goody-goody tone, and an unreality in the moral consequences and punishments of vice, which a child readily detects as being unlike actual life, and views with suspicion and distaste. The poetry is frequently unsuitable, being either too childish or too difficult. It should be mostly of the ballad or descriptive type.

Such poets as Wordsworth, Scott, Cowper, Goldsmith, Thomson, and many others, will supply suitable extracts.

(*c.*) *Upper, or information stage.*—The lessons may here be considerably longer, especially in the advanced books. The work is more intellectual, and excellence and variety of style are much more important. We have to train to continuous reading, and cannot do this by a collection of short scraps or mere dry epitomes. Stories will be here only occasionally introduced, and much more attention given to matters of fact, but emotional elements must not be absent. Descriptions of scenery, short biographies, historical incidents, accounts of great discoveries, brief essays on general subjects, explanations of natural phenomena, and suitable lessons in elementary science will form the bulk of the subject-matter. The poetry should be of an increasingly higher type, but not too difficult. Many of the selections, both of prose and poetry, found in the books in common use, are of too difficult and classical a kind for children to grasp their meaning, or feel proper interest in them.

The **special readers** for teaching such subjects as geography, history, natural history, botany, &c., partake much more of the nature of simple text-books, and will be in many respects unlike the general readers. The topics to be treated should be selected with great care, and should, as far as possible, be connected. Graduation of language must not be forgotten, but graduation of subject-matter is here of still more importance. The lessons must not be too long, should be treated in a simple, engaging way, be well illustrated, and present few difficulties in words or expression. The latter should be left for the most

part to the ordinary reading books. The object here is to train the child to master the *facts* by reading, and anything which would unduly break the continuity of thought, or distract attention from the matter, should be avoided.

The **remaining books** necessary for school use comprise principally arithmetic books, grammars, atlases, copy books, manuals of the specific subjects, and a few good reference books for the use of the teachers. Many good standard *arithmetics* are now published, providing a large number of well-graduated examples. The *grammars* for the use of children are not so satisfactory, but several good examples exist. They should give exact definitions and a very clear account of the elements, should not be burdened with a large number of exceptional cases, and should have a numerous selection of suitable exercises. *Atlases* should be clearly drawn, and should contain, as nearly as may be, just the information needed in studying the geographical text-books. Many are confusingly and uselessly full of names. Many varieties of *copy books* are in use; some with single copies, some with more; some making large use of the tracing method, some scarcely any. In one case, too, a sliding head-line is used. The teacher will, of course, be guided largely in his selection by the style of writing he approves, but careful examination should be made before adopting any set. Many contain the letters wrongly formed, in some the slope is far too great, some vary greatly in style from book to book, and others are objectionable from the great variety of ways in which the capitals are made. The *manuals for the specific subjects* are often well drawn up, but run too much on the lines of the larger treatises, and too little in ac-

cordance with the order most teachers would adopt in instruction. Every school should have its small stock of *reference books* for the use of teachers, independent of the school library. There should be one or two carefully selected treatises on each of the subjects taught in school, a good dictionary, and, if possible, a cheap but trustworthy encyclopædia, such as that published by Messrs. Chambers, which is excellent.

CHAPTER VII.

REGISTRATION.

THE principal *objects of registration* are, to mark the growth, changes, and financial state of the school, its past circumstances and present prosperity, and to chronicle any events of importance in its history; to supply the facts concerning the children or the school required by the Education Department, as a guarantee that certain conditions of grant are fulfilled; to enable the teacher to obtain with promptitude and certainty particulars as to the attendance, payments, and stage of progress of each child, for his own information, that of the managers or parents, or for purposes connected with the various Acts regulating the labour of children. The Appendix on Registration to 'Instructions to Inspectors' (August 1882) says:—

'1. The Code requires that before any grant is made to a school the Education Department must be satisfied that suitable registers are provided, accurately kept, and periodically verified by the managers (Articles 8 and 96*c*), and again under Article 115 the grant may be reduced upon the inspector's report for faults of registration.

'2. In every school there should be (1) a register of admission, progress, and withdrawal; (2) registers of daily attendance for all scholars; (3) a book of

summaries. These registers must (Article 8) be provided by the managers out of the funds of the school, so as to be the property of the school, and not in any sense of the teacher.'

There must also be a 'Cash-book of School Accounts,' kept by the managers; a 'Diary or Log-book'; and 'a Portfolio to contain official letters, which should be numbered (1, 2, 3, &c.) in the order of their receipt.'

In addition to the above the following will be found advisable:—

(1) An examination register; (2) a register of home-lessons and of general work. In certain cases a 'late book and a 'stock book' will also be found useful. Some School Boards require a register to be kept of all administrations of corporal punishment, with reasons, &c.; and in the 'Instructions to Inspectors' it is said that when such punishment is administered, 'an entry of the fact should, in their lordships' opinion, be made in the log book.'

In every system of school registration there must of necessity be two departments—the 'individual' and the 'collective.' The *individual department* should note the necessary facts concerning each particular child, such as date of admission, residence, promotion, withdrawal, attendance, fees, successes at periodical examinations, &c. The *collective department* regards children only in groups, and consists of totals, averages, general conclusions, &c., respecting a class, section, or the whole school. Besides matters of fees and attendance, the collective department will register percentages of passes at the periodical examinations, work done by certain classes within particular periods, and any special occurrences affecting a group, whether large or small.

A. *The Admission Register.*

This consists of two parts—the 'index' and the 'entries.' The following are the regulations respecting it[1]:—

1. 'The *admission register* should be kept exclusively by the head-teacher, and made up at least once a week. Successive numbers should be allotted to the children on their admission, so that each child may have its own number, which it should retain throughout its school career. A child who returns to school after an absence of any duration would resume its original admission number. The name need not be re-entered in the Admission Book if the child is re-admitted in the course of one school year.

2. 'No child's name should be removed from the register on account of absence for any period less than six weeks (except in case of death) unless the managers have ascertained, or the school attendance officer reports, that the child has left the school or neighbourhood.

3. 'This register should show distinctly for each child in the school (*a*) its number on the register; (*b*) the date of its admission or re-admission, day, month, and year; (*c*) name in *full*, christian and surname; (*d*) the name and address of its parent or guardian; (*e*) whether exemption from religious instruction is laimed; (*f*)[2] the exact date of the child's birth, day, month, and year; (*g*)[2] the last school (if any) which it attended before entering this school; (*h*)[2]

[1] For this and succeeding extracts see *Appendix*, quoted above.

[2] 'Special care must be taken to obtain exact information on these points from the parents, former teachers, and registrar of births, if necessary.'

the highest standard in which it was there presented ; (*i*) the successive standards in which presented in *this* school ; (*k*) the date of leaving.

4. 'Where several children of the same name attend, they may be distinguished thus :—"John Jones (*a*)," "John Jones (*b*)," &c.'

The surname should be entered first, as it facilitates the finding of a name by running the eye down the letters. The names of half-time scholars should be distinguished in some way, as writing (H. T.) after each. A dark or red line should divide the entries of one school year from those of another. The index should be carefully filled up as the names are entered in the register. Admission registers 'must never be destroyed.'

B. *The Class or Attendance Registers.*

An attendance register should be provided for every class. The upper portion is usually taken up with the *individual* particulars and totals ; the lower part being reserved for the *collective* items which supply the information required for the 'summary.' The following are the Department requirements.

1. '*The attendance registers* must *be marked every time that the school meets*, however small the number of children present, and all attendances so marked must be taken into account. They should show the daily and weekly attendances of every scholar, beginning with the first day of the school year (Article 22), and continuing to the end of the same.

2. 'Adequate time for marking these registers should be provided for in the time tables—from five to ten minutes or more—according to the number of scholars.

3. 'In mixed schools the boys should be entered in the upper part of a page, the girls in the lower, leaving a space between them.

4. 'On the outside of the cover of each register should be legibly written the name of the school, and the year, also the department (boys', girls', mixed, or infants', as the case may be), and the class or classes to which it belongs. All registers should be paged.

5. 'There should be columns for each child's admission number, for its name in full, and its age last birthday, and columns for all the weeks in the year, which should always be dated at their head with the day and the month. One also for the morning attendances and another for the afternoon attendances of every day, with a place at their foot for adding them up. A column for school pence received in each week is not unfrequently added to the attendance columns, but as this is apt to cause confusion in the additions, both of the pence and attendances, the pence columns had better be kept separate, unless entries be made in them in red ink. There should be a column for the entry, at the close of each week, of the total attendances made by each child during that week, and at the end of the register columns, to sum up the total attendances of each child during the year. The Code requires a separate register for half-timers. The register for each class may be marked by the pupil teacher (if he have completed his second year) having charge of the class; but the head teacher will be held responsible for its being regularly and properly kept.

6. 'In marking the attendance registers the following rules should be observed:—(1) The registers must be marked, and excepting marks cancelled under

(10) *infrà*, be finally closed at least two hours before the termination of the time given to the secular instruction at each meeting of the school, and at the time specified on the approved time-table; (2) after the registers are closed no child may be marked; (3) children must be marked at each meeting of the school; (4) in ink, never in pencil inked over afterwards; (5) presence must be marked with a long stroke, thus /, or \; (6) absence must be marked with an "a"; (7) there must be no dots; (8) no erasures, if any error has been made it must be corrected by a footnote; (9) no blanks; (10) if a child leaves before the two hours of secular instruction expire, its mark for presence should be cancelled by another stroke across it, thus ×, and the total attendances for that meeting corrected by placing under them —1, —2, as the case may be; (11) registers must be original and not copied from slates, papers, &c., on pretence of keeping them clean, or any other plea; (12) the number of attendances made by the class should be entered at the foot of the column every morning and afternoon at the time of closing the registers; (13) the number of attendances made by each child during the week must be entered; (14) when a half or whole holiday occurs, or on the occasion of days set apart for special inspection, under section 76 of the Education Act (when the meetings and attendances are *not* to be registered for the purpose of annual grants), a line should be drawn down the whole length of the column or columns; (15) for longer periods "holiday" should be written across the columns.

7. 'At the foot of the attendance columns for each week, or in some place specially provided for them in

the registers, should be entered: (*a*) the number of times the school was open, morning and afternoon; (*b*) the total number of attendances made by all the children on this register during the week.

8. 'At the foot of each pence column the total amount of pence received during the week.'

Suggestions.—Enter surnames first. Fill in dates of admission with boys' names in first quarter, and transfer them to last quarter with any additions when required. The use of various marks for such things as sickness, home circumstances, weather, &c., except where the cause of absence is of some standing, cannot be carried out conveniently, and is best avoided, as we do not generally know why a child is absent until afterwards. It will facilitate counting up, if the strokes for morning and afternoon attendance are made to slope in opposite directions. The total of attendances made by the class during the week, found by adding together the morning and afternoon totals, *should always be tested* by comparing the result with the total obtained in one of the following ways: either by counting all the absences in the week's attendance columns, and subtracting them from the total number of attendances possible, or by adding the weekly totals of attendances made by each child which appear in a column by themselves. This system of checking one set of totals by another should be strongly insisted upon by every master. It is a good plan to have a small blackboard, say a foot or eighteen inches square, or a large slate upon which to enter total attendance morning and afternoon. A responsible teacher may, in a very few minutes, count the children and see that the number corresponds to the total of attendances marked in the register.

This daily summary forms a check to errors in register marking, the master is able to see at a glance if the attendance is lower than usual, and inquire the cause and send after absentees, while school managers coming into the school can see the attendance for themselves.

'*Attendance* registers, when filled, should be put away and preserved or at least *ten* years.'

Class registers vary considerably in arrangement of the particulars. One of the greatest improvements introduced of late years is the separation of the columns for fees, and those for the weekly totals of attendances for each child, from the daily attendance columns, and the placing of the first almost directly after the names, and of the second at the end of the attendances. There are three ways of separating the morning and afternoon attendances; by dividing the small squares intended for each child's daily attendance horizontally, perpendicularly, or diagonally. Where the attendance marks lie just over each other space is saved, but greater care and trouble are needed in counting up the afternoon attendances than when they occupy a separate column. The first plan has the merit of compactness, the second of clearness, the third is very little used.

Attendance. 'An "attendance" means attendance at secular instruction:—

(*a*) During one hour and a half, in the case of a day scholar in a school or class for infants;

(*b*) During two hours, in the case of a day scholar in a school or class for older children.[1]

[1] 'For boys, military drill under a competent instructor for not more than two hours in any week, or forty hours in any school year, and for girls lessons in practical cookery, where the inspector reports

(*e*) During one hour in the case of an evening scholar.'

'No attendance is, as a rule, recognised in a day school for any scholar under three years old; or in an evening school for any scholar under fourteen or over twenty-one, but children under fourteen who are exempt from the legal obligation to attend school are recognised as scholars in an evening school.' (Code 1882, Arts. 12 and 13.)

c. *The Summary, &c.*

The following are the points laid down respecting the summary in the 'Instructions to Inspectors.'

1. 'The *Summary* should contain (*a*) the weekly entries of the attendance of each class transferred from the class registers every week into appropriate pages, and the average attendance for each week; (*b*) at the completion of the year the annual averages for the whole school should be struck and entered of boys and girls separately; (1) under 3, (2) between 3 and 7, (3) above 7, and (4) above 13, and the highest weekly average noted; (*c*) the summary should be clear, and should at once show the results asked for in the Managers' Return (Form IX.).

2. 'In this book the duplicate examination schedules, and copies of the returns in Form IX., should

that special and appropriate provision is made for teaching it, for not more than forty hours in any school year, are reckoned as instruction for the purposes of this article.' Not more than one hour at a time should be devoted to drill; and the War Office 'Memorandum' shows that the employment of a Government instructor is contemplated, at least in the first instance, though schoolmasters who have 'passed a serjeant's examination before an adjutant of volunteers' may continue the work.

be preserved, together with a list of scholars qualified to be presented, but not presented, with the reasons for their not being presented, and likewise of scholars presented a second time in the same standard, with the reasons for their being so presented.'

Averages.—If we have a number of unequal quantities a certain mean may be found such that the sum of all the excesses exactly equals the sum of the deficiencies—this mean is called the *average.* The average may be found by dividing the sum of the several quantities by their number.

By average attendance is meant the *average number of children* present each school time during a given period. The average attendance is sometimes confused with *average number of attendances.* In the first case we have to distribute so many attendances uniformly over so many *times,* so as to arrive at a number of *children*: in the second we distribute the attendances among so many *children,* so as to arrive at a certain number of *times.*

'The average number in attendance for any period *is found by adding together* the attendances of all the scholars for that period, and dividing the sum by the number of times the school has met within the same period; the quotient is the average number in attendance.'

The average for the quarter or the year must not be obtained by finding the average of the weekly averages—this only gives an approximate result. 'For the purpose of calculating the average attendance, but for no other purpose, each "attendance" of a half-time scholar shall be counted as one attendance and a half.' (Code 1882.)

Returns sometimes required. (1) *Number present at all.* By this is meant the total number of children who have made any attendance, even one half day, during the period for which the return is required.

(2) *Average number of attendances made by each child present at all.* Find the total number of attendances made by all the children during the given period, and divide by the number present at all. It must be remembered, as stated above, that this is quite different from 'average attendance.'

(3) *Number on the register.* This is obtained by counting every child's name not taken off the register at the date of the return. Supplementary rule No. 12 says: 'No child's name should be kept on the admission register after a fortnight's continuous absence without inquiry from the parents whether the child has been withdrawn. The names of children withdrawn (whether they are so the answer of their parents will decide) should be cancelled at once in the registers, and not included in the returns of age and stay at school; but the attendances (if any) opposite to such names in the class registers must be counted' for the calculation of the average attendance, 'and the whole number of such names must be counted for the return, "left in past year."'

(4) The *number left in past year* may also be obtained as follows: Find the total number on the class registers at the beginning of the year; add to this the number admitted during the year from the admission book, and subtract from the number thus found the number on the books at the close of the school year. One method may be made to check the other.

The summary should be made up week by week from the class registers, which if marked and kept by the other teachers should then be carefully examined by the master. The highest weekly average may be marked at the end of the year by darkening the lines enclosing the number. Printed summaries are often

much too complicated in arrangement; the simpler they are in form, and the more directly the results required can be obtained, the better. 'Summaries should never be destroyed.'

'The Managers' Return (Form IX) will contain a certificate that the registers have been checked at irregular intervals, and at least once in every quarter, by the managers. To check the registers the managers, or some one deputed by them, should visit the school, without previous notice, after the registers ought to be closed, and ascertain that the number of attendances marked tallies exactly with the number of children then present. An entry should also be made in the log book and in the registers at the time of checking them; they should also be signed at the same time by the teachers responsible for them.

'*The managers' return should show, by separate entries, the number of admissions and re-admissions in the course of the first and second halves of the school year respectively.*'

'My Lords do not at present,' says the *Instructions*, 'insist upon uniform registers as a condition of annual grants, but they trust that by the co-operation of the managers of schools such an extent of uniformity may be gradually introduced as to make the adoption hereafter of a uniform system of registers a matter of little difficulty.'

D. *The Log Book.*

The school life often does not vary much from day to day, and when a daily record was required, the entries were not only troublesome, but necessarily in many cases of the most useless and frivolous description. This was to use the book as a diary properly so called. A log book, however, in which occasional entries are made, when anything worthy of note

occurs, is a very different thing, and should be carefully kept. When it is so, it is a most valuable and useful record. It is really a reference book of past events and circumstances.

The Code of 1882 says (Art. 8*d*), 'The log book must be stoutly bound and contain not less than 300 ruled pages. It must be kept by the principal teacher, who is required to enter in it from time to time such events as the introduction of new books, apparatus, or courses of introduction, any plan of lessons approved by the inspector, the visits of managers, absence, illness, or failure of duty on the part of any of the school staff, or any special circumstances affecting the school, that may, for the sake of future reference or for any other reason, deserve to be recorded.

'No reflections or opinions of a general character are to be entered in the log book.'

PART III.

DISCIPLINE AND MORAL TRAINING.

CHAPTER I.

THE USE OF THE EMOTIONS IN EDUCATION AND THEIR CULTIVATION.

WE have seen that, while we provide for the culture of the intellectual side of the mind, we must not lose sight of the moral and emotional elements of the child's nature; and though the formation of the character is not so exclusively the work of the teacher as the training of the intellectual powers, it none the less needs his particular and constant care; not only from the fact that upon the education given to the moral nature and the emotions depends to a large extent the child's future happiness, but because they influence, in a very large and important degree, the success even of the more distinctly intellectual side of the work.

By *emotion* we mean the greater or less degree of excitement or agitation which accompanies particular ideas or sense impressions in certain cases, and takes the form of pleasure, or pain, or a mental stimulation which cannot properly be said to be either pleasurable

... The mental association is usually con... and bodily states of body which ac... exciting painful or pleasurable feelings ... the element of the emotions ... may be combined, as in the ... and the accompanying choking ... Bodily affections apart may give rise to ... and pass into ... but an emotion becomes so inter... ... it is usually ... the distinction therefore ... the mind is simply one of ... and extremely marked ... such names as affection, ... remorse, surprise, ... the degree of variables due ... both of kind and degree, is ... In all cases there exists a ... the body varying in force with ... and with the ... and other conditions of the ... Particular emotions exert to some ... a selective action in the mode of diffusion of ... bodily stimulus giving rise to outward expression, whereby their presence is recognised, and in some ... to other physical effects.

Action, or increased functional activity, uses up the nervous energy, and thus tends to tranquillise the agitation; as in the shout of joy, and the relief of tears. The muscles of the face are very commonly influenced in this way, and are often associated with the contraction of other muscles giving rise to involuntary actions. Tremor is another frequent accompaniment, and in case of strong emotion, the

heart, the breathing, the secretions, and the skin may also be affected. In fact 'states of pleasure are usually accompanied with an increase in some or all of the vital functions, and states of pain with a depression or weakening of vital functions.'

Emotion and intelligence run side by side, and the origin of the former, as of the latter, lies far back in the earliest perceptional stages of the child's growth. The simpler phases of emotion, arising from some form of sympathy, act almost as soon as the child comes to recognise exterior objects as having any relation to himself. He soon learns to distinguish between the smile of pleasure and the frown of reproof on the faces of those around him, and his own feelings are influenced accordingly. Some actions and ideas are thus early associated with pleasure, others with pain, while others again remain indifferent. Pleasure in the contemplation of objects leads to *desire*; pain, on the other hand, tends to *aversion*. When the pleasurable emotion gives rise to desire of sufficient strength to serve as an incitement to voluntary action it becomes a *motive*. Pain may also act in this way by impelling us to the avoidance of an action, and it may be the adoption of some opposite course. In this way arise many motives, either of an inciting or deterrent character, which influence the *will* in a very forcible manner. Pleasurable and painful emotions may, however, if acting in opposite directions, neutralise each other to a greater or less degree according to their relative proportions.

The proper direction of the emotions so that they may act in a way beneficial to the child, and furnish, directly or indirectly, motives to exertion, is an im-

portant consideration in education; and such measures should be adopted, as will enable the teacher to make useful appeal to these powerful aids towards securing the voluntary exercise of the child's powers, in the direction in which we need to employ them. As, however, original predisposition, mental development, and the state of the health have very considerable effect in determining susceptibility; and as the emotional exercise of no two individuals can have been the same; motives which act powerfully upon some natures scarcely affect others at all. Hence motives correct enough at some periods of moral growth may at others be not only ineffective, but injurious. This shows us again how important it is to know the nature of the child—from this point of view, that we may judge what motives may be most suitably employed at a particular time to accomplish a particular end.

It is a law of emotional action that frequent or violent exercise rapidly weakens succeeding effects; hence for special appeals we should rely upon as wide a range of motives as possible, only make occasional use of the same motive if founded on an emotional basis, and employ the least amount of emotional stimulus which will serve our purpose. All violence of emotion is bad in the case of children, not only from its deadening effect upon the sensibility, but because it may lead to positive injury. Powerful appeals to the feelings should rarely or never be made. To teach so as to bring children frequently into tears is not difficult to one who knows them, but it is in the highest degree mischievous.

In some individuals the emotions seem naturally strong. Poets, musicians, and artists are generally

men of the keenest susceptibility to feeling. Where the emotional side of the mind is highly developed it is likely largely to influence the conduct, and the proper regulation of the emotions is a matter of great importance. A person in whom these act strongly, and who allows himself to be hurried into action before the judgment has proper time to act, is said to be impulsive. The emotional force, however, frequently spends itself in a first burst, and as a motive, although strong for the time, has little persistence. Against a habit of being governed by spasmodic effects of this kind—the fit of zeal being usually followed by one of apathy—we should do our best to guard children, and to strengthen in them the power of endurance and self-restraint. It is well to bear in mind in our treatment of them, that the will has little *direct* influence over the emotions; yet that it may materially weaken their power *indirectly*, by turning the attention away from the cause of the emotion, by strengthening an antagonistic power, and by controlling the outward expression. It may also be made to govern their influence as motives. The greatest care should therefore be exercised wherever the emotional elements of a child's nature come into question. Thus it may cost a child full of animal spirits an amount of effort of which we do not take the trouble to form any conception to restrain himself from action, and remain quiet as told. A child may control himself in grief or pain sufficiently not to cry out, but it is absurd to command him not to sob. In the case of laughter at anything ludicrous which turns up in a class, it is far better to let the fit expend itself naturally at once, than to endeavour to stifle it, and continue the teaching with an accom-

paniment of small outbursts. To scold or threaten a child till he is in a tremor of fear, and then command him to do something perhaps requiring all his wits to perform properly, is often to demand an impossibility; and to threaten still further, and at last punish him for disobedience, not only shows ignorance of the child's nature, but inflicts a cruel wrong which will leave its mark behind it for many a day. It is to be feared that some cases at least of so-called obstinacy are of this character. What we call *nervousness*, when we are placed in an unusual or trying situation, is also an emotional outburst, and may so agitate the mind as to paralyse all power of thought. This too must be allowed for. The way to overcome it is by encouragement and experience; and to scold a child for it, or for the spasmodic movements which sometimes accompany it, is but to increase the evil. While therefore we should accustom children to the indirect control of emotion by the will, we should take care that our exactions are reasonable, and in case of emotional excitement allow proper time for its subsidence.

Some persons again of cold philosophical temperament are very little influenced by emotion, especially of some kinds. They view suffering with indifference, greatness or beauty without admiration, and have but little sympathy with their fellows. The exclusive attention to the development of the intellectual side of the mind, more especially if the imagination has been dwarfed by neglect, not unfrequently leads to this result. Mathematicians often fail to appreciate or to be moved by any of the beauties of art. Landor, in one of his dialogues, makes Chesterfield say, 'Newton like Barrow had no feeling or respect for

poetry.' Where the emotions are abnormally inactive it is to be viewed as a defect. Children of this cold unsympathetic nature are often the most difficult to deal with. They seem dead to most of the ordinary motives which influence others of their own age, and need the nicest adjustment of conditions, and the most judicious stimulation and treatment, in order to train them successfully.

Directly our sympathetic emotions fail to affect us towards action, and we are content to have our feelings stirred without making any effort in behalf of the distress of others, our sympathy degenerates into mere sentimentality. We should do our best to prevent this degeneration in the case of children. Care and moderation are necessary in our use of imaginary stories as illustrations; there is always a temptation to overcolour and arouse a false emotion, while the frequent appeal with no attention to the practical carrying out of the lesson learned tends to deaden sensibility. The emotions are so intimately connected with the moral nature, that the culture of the one is necessarily to a large extent bound up with the development of the other; and in the correct union of the two lies the strength of the training imparted. Association thus acts powerfully here as in the sphere of the intellect proper. Without accompanying emotion morality is little more than a cold and lifeless routine.

One important object in moral education is the association of a feeling of pleasure and satisfaction with right conduct, and of pain with wrong doing. This must be so accomplished that the connection may be as natural as possible, and the nature of the pleasure become of a higher and higher type as the

child is able to appreciate higher and nobler motives. As a natural consequence of certain actions pain may be left to accomplish its own end, but artificial appeals to it as a motive need the very greatest circumspection, both as to the temperateness of its use and the mode of its association with action. Shame judiciously used may be made a powerful engine for accomplishing our ends with children; if used too frequently its familiarity destroys its effect. Fear which is of the nature of dread or terror should find little or no place among the emotions induced to serve the purposes of the educator. A discipline of terror not only fails to successfully accomplish its end, but gives rise to many of the worst vices of slavery; hypocrisy and falsehood, idleness directly there seems a chance of not being found out, meanness and cunning, hatred, and a train of other evils. Under such a discipline no true or useful moral growth can take place.

Children are often emotionally influenced very readily by their surroundings, and are easily pleased on the one hand, or rendered unhappy on the other. The importance of happiness to children is very great, and anything which will conduce to this should not be overlooked. Their work should be made as pleasant for them as circumstances and the need of vigorous effort will admit; no unnecessary restraint should be put upon their liberty; they should be spared as much as possible both the sight and the description of bodily suffering; and it should not be forgotten that much of their happiness is of a reflected character and dependent upon the cheerfulness and sympathy of those around them. Under the sunshine of pleasurable conditions the better parts of a child's nature unfold themselves naturally, put on added

tints of beauty, and grow with a strength and vigour which enables them successfully to resist the dwarfing effects of evil influences.

'Sympathy,' says Miss Edgeworth, 'is our first best friend in education.' The great value of the existence of this feeling between teacher and taught has already been dwelt upon. Its influence both in learning and discipline is very great. Every member of the school should feel the teacher's esteem and approbation to be a reward worth striving for, and his ever ready sympathy an encouragement and stimulus to right action. We must attend also to the cultivation of the sympathy of children one with another, not only that phase which exhibits itself in cases of pain or distress, but that spirit of helpfulness and that genuine and habitual consideration for the feelings of others which form the foundation of all true courtesy. Nor must kindness to animals be forgotten.

One of the emotions which conduces most perhaps to educational improvement is the pleasure of study, of steady pursuit, of success in the accomplishment of a set purpose. All steadily continued and honestly performed work, of whatever kind, will scarcely fail to arouse and strengthen this useful feeling. Such effort has also a further moral value; lessons of perseverance, patience, regularity, and the wholesomeness of work do not exhaust its gains. It is the teacher's part to encourage this emotional stimulus of labour, to rouse to earnest self-effort, and to step in with help just before difficulty passes into disheartenment. Further, the establishment of a love for school and of a healthy *esprit de corps*—mainly the result of respect for and confidence in the teacher, of pleasant conditions of

work, and of feelings aroused by consciousness of progress and success—may be made of much service to the child's well-being, and should form one of the aims of every teacher who would have his school work what it should be.

In addition to the above we must also give heed to the emotions aroused by the contemplation of beauty, sublimity, goodness, order, harmony, &c.—in a word, the *æsthetic emotions*. These add largely to the pleasures of life by giving us a greatly increased enjoyment in the contemplation of external things, whether of nature or of art; they lead us to recognise the beauty and attractiveness of truth and right, and by contrast the ugliness and repulsiveness of falsehood and vice, thus not only enabling us to distinguish them more clearly, but affording an additional motive for choosing the one and avoiding the other; they assist the growth of the more spiritual part of our nature, by withdrawing the attention from the more gross and animal side; and they soften the nature, improve the manners, and tend to strengthen all the emotions of sympathetic tendency. The æsthetic emotions act spontaneously, and the germs exist at an early date; but they may be greatly developed by culture both in strength and extent of range. We may say roughly that emotional culture of this kind should render our appreciation keener and our detection more acute of three kinds of beauty: first, the intellectual beauty of truth and order; second, the moral beauty of goodness and right; and third, the physical beauty of nature, of things with and without life. Art frequently combines elements from all three.

An important thing in training this side of the emo-

tional nature is in the first place to fix the attention strongly upon the pleasure derived from right, truth, and beauty ; and until this positive cultivation has left its fixed influence on the mind, to admit as few disturbing elements of an opposite kind as may be. The opportunities in the course of school-work of kindling a first glow of emotion respecting this or that, of dropping a suggestive word here, of pointing an example there, of rousing the attention and guiding the observation to see what we wish, are neither rare nor unimportant, apart from any formal teaching. The consideration of outward things should come first, the mind being directed to such matters as form, colour, proportion, harmony, and unity of design combined with variety of effect. Music will also early find a useful place; singing, especially of patriotic songs and those connected with the home life, affording many elements of beneficial emotional culture. Later on the attempt should be made to train to the recognition of the beauty of law and order, and finally of unflinching adherence to duty, of generosity, of courage, &c. Wherever occasion offers we should seek to strengthen the emotions of admiration and reverence.

Oral lessons will supply frequent means of directing attention to various beauties of nature, or of the productions of human ingenuity. Reading—especially of poetry, history, and imaginative prose—will afford many opportunities of useful training. The examination of good drawings and pictures will prove of much value ; though grotesque examples and caricatures should at first be avoided, and only sparingly used at any time with children. The services of the drawing-lesson, too, should not be left out; and many useful hints may also be given respecting good taste

in dress, more particularly as to the avoidance of showy or false ornament and badly-arranged colours.

It is very needful to guide a child's early æsthetic associations, not only on account of the permanence of impressions during the first years, but also because the results will be constantly referred back to, consciously or unconsciously, as the first rough standards of judgment. The pleasures of good taste are matters of slow growth, and though the effect of our efforts may not be immediately discernible their influence will by no means be lost. The saturation-point will be reached at last. Be it remembered, also, that what we want is to make children *feel* not *talk* about these things—that it is appreciation and not criticism which we have to aim at.

CHAPTER II.

GENERAL MORAL AND RELIGIOUS TRAINING.

THE object of moral training is to afford the child such guidance and control from without, as shall lead to enlightened, regulated, and persevering effort from within; the external stimulus and direction being withdrawn in proportion as his moral strength and knowledge increase, and he is able safely to go more and more alone. As law and duty come gradually to the front, the authority of the educator withdraws into the background; the personal element, so necessary at first, may be gradually eliminated as the child's power of grasping abstract things strengthens; and the support of earthly parents and teachers becomes less and less necessary as he learns to rely upon the support of that Heavenly Father, whom he must be taught to look up to as the Source of all good and the Fountain of all true strength.

The association in the child's mind of right or wrong with certain actions takes place very early, the germ no doubt being found in the effect produced by the expression of pleasure or displeasure on the part of the parent, and starting into life independently of any ideas obtained from language. Love and faith lie at the root of the child's morality. As his experience becomes greater the spheres of right and wrong

expand, but are still largely influenced by the earliest impressions, by the consideration whether they are allowed or disallowed; obedience is still the main test, and it is not till later that the child comes to form any adequate idea of moral rectitude apart from the will or wish of another. The sanction of the parent is the child's first canon of judgment. The earliest moral notions of a child thus depend almost entirely upon his surroundings—the approbation or disapprobation of others, the consequences which he discovers result from certain actions, the example of those around him, and the amount of sympathy and guidance afforded him. It is in the nature of things that the training to which children are subjected should vary, that the effects should differ with original differences of constitution, and thus we cannot wonder that no two persons should ever think exactly alike. Still that there is a general consensus of opinion upon all important moral points is beyond dispute, and hence it becomes important for the educator to consider how the child may best be brought to know what is expected of him, and be influenced to act accordingly.

Different natures need different treatment: some seem almost incapable of realising the weight of moral responsibility, some are strong in one thing, some in another. Some need stimulation, some need restraint; nor are the same measures suitable to all phases of moral action, any more than to all the intellectual faculties. Even the same point may need different treatment at different times, and if we would succeed properly we must be able to estimate correctly the exact state of present conditions, and be guided by our judgment of the needs of the moment; not, however, for the sake of the moment, for, so far as results are

concerned, the future is of much more importance than the present. Knowledge of the child is essential. We must watch carefully his actions and tendencies, and make use of the information thus afforded. Much of our success depends upon seizing just the critical moment to do the right thing, say the right word, give the encouraging or reproving look. No complete course of treatment can be laid down for all cases: circumstances will always introduce large modifications of method, and must be allowed for. If antagonistic they will have to be overcome, if favourable made use of, as far as other conditions will admit. Whatever schemes and plans are formed they must be kept out of notice of the child, he must feel only the influences and results.

Morality is strengthened by the support of the intellect on the one side, and by the benevolent emotions on the other. Using the terms broadly, intellectual and moral training are the complements the one of the other; and attention to both is necessary in anything worthy of the name of education. But we seem at the present day to be in some danger of forgetting the intimate connection of the two, and of devoting ourselves more exclusively to the cultivation of the one to the neglect of the other and the injury of both. The energy with which we apply ourselves to intellectual pursuits, as well as the good or bad use we make of our acquisitions, depends to a great extent upon the moral training which accompanies the cultivation of the mind in other directions. Without moral guidance our skill and knowledge may be a source of evil to ourselves and unhappiness to those with whom we are brought into connection. To attempt the divorce of morality and intelligence is to violate the great principle which should govern all education.

The earliest moral training gives that bent to the mind which is likely to govern its direction in a greater or less degree throughout life; not only because the child once started in the right course is much less likely to turn towards evil, but also from the permanence of the effect produced upon him during the early days. A wrong start is a most serious drawback, and the work of reclamation is a much more difficult one than that of guidance and promotion. It is thus of prime importance, if we would be sure of success, to begin early; and much may be done for the moral nature by appropriate means before it is well to interfere with the intellectual powers at all in the way of direct training. The development, however, must be perfectly natural. Precocity of any kind is to be discouraged. It makes a present show by the sacrifice of strength hereafter. Its evil effects in intellectual matters are generally recognised, and it is equally harmful in regard to morality and religion. Unnatural development of any side of the child's nature will in the end work the ruin of that which we are so anxious to cultivate.

Moral education has for its object the development of the sense of duty, and the gradual training to such self-control that, in all ordinary circumstances at least, the mind will certainly incline to that which is right, and action be governed accordingly. The touchstone of morality is good conduct.

The **elements to be made use of in moral training** are, (1) *knowledge* and *intelligence*, that the child may perceive what he ought to do, and later on why he should act in a particular way, so that he may be guided by right principles and judge correctly of the nature of action; (2) *right motives*, varying with age

and progress, that he may be induced to act correctly; (3) *volition*, that he may determine to do that which is right, and have power to check himself when any evil tendency exists; and (4) *practice*, passing gradually into good habits. The chief conditions of success are: freedom of action for the child as far as safety goes, external direction in cases where he is likely to go wrong, control when he allows himself to fall into evil, sympathy and encouragement in his efforts, and the good example both in words and actions of those with whom he is more intimately connected. The moral atmosphere indeed in which the child lives is of the greatest importance to his well-being, nor must the sunshine of cheerfulness ever be long absent. The great drawback to success is often the home difficulty, the bias sometimes of both parents and companions in certain moral directions being distinctly against the teacher's exhortation and control. The parents have not unfrequently to be influenced through the children, before useful results can be arrived at.

What we have to aim at in moral training is to induce the child to act in accordance with the dictates of the highest and best motives he is capable of understanding; to lead him gradually to judge for himself as to what is right and noble in conduct; and to incline him to make a correct choice and adhere to it. What is to be considered noblest, what highest, he must learn from others; and the moral notions he forms will depend upon the persons by whom he is surrounded. Later on the influence of books must not be forgotten. It is only, however, by experience, by conquest of temptation, by perseverance in right action, that he can grow in moral strength, and this little by little. It is our business to take care th

while he is allowed to walk himself the difficulties of the road are not too great for such strength as he possesses, to remove any stumbling block which may be in the way, and to lend a helping hand when any pitfall presents itself. 'By diminishing temptation,' says Miss Edgeworth, 'we act more humanely than by multiplying restraints and punishments.' Every temptation yielded to destroys or neutralises a certain amount of moral force, which has to be made good; every evil tendency mastered has facilitated the next conquest. Children must be led to see that to escape from temptation or evil thoughts the attention should be fixed to the best of their power upon other things, and that to let the mind dwell upon the evil is to weaken resistance, and greatly increase the danger of falling. As, however, the will is weak in children, we must not rely too much on their power of resistance, but make right action as easy and pleasant to them as circumstances allow.

It does not serve the purpose of moral training simply to impose upon the child a certain code of restrictions, and bring in authority to support them.

Too exclusive attention is frequently given to what shall *not* be done. At best, prohibitions can only cover comparatively few cases of action presented to the mind for judgment; and it is mischievous to allow a child to suppose he may do anything which has not been expressly forbidden. We want him to pause and think for himself before committing himself to any line of conduct about which he is not clear. It is the spirit of morality, rather than the letter, which we have to inculcate. Very frequently too we lay far too many injunctions to do right upon children: we are continually *telling* them to be good, without doing

anything further to induce them to act as we would have them. Children soon weary of being thus lectured at every turn, and such a course is much more likely to disgust them than create in them a liking for right doing. 'Long talking begets short hearing,' says Richter, and he adds in another place, 'Even a grown-up man, whom some one should follow all day long with movable pulpit and stool of confession, from which to hurl sermons and anathemas, could never attain any real activity and moral freedom; how much less then a weak child who at every step in life must be entangled in a "stop—run—be quiet—do that."' To *command* a child to be good is one thing, to *influence* him to be good is quite another. Nor must we be over strict; we must leave him room to grow, and remember that many defects are but weaknesses which time will correct. We are too anxious to see the fruit almost before we have planted the seed. If a child is right-minded, anxious to improve, and makes as brave a struggle to act rightly as his strength allows, it is all we can reasonably hope for. Ignorance, inexperience, and a craving to know, are fruitful sources of wrong doing in children: there is always a tendency to try what things are like, and as they have little power of realising future evils, or of judging correctly of effects, they make the essay, even at the risk of some pain to themselves. Nor is this to be deplored, if no permanent evil results; in most cases a salutary, and probably necessary lesson will have been learned, and learned in a way not likely to be forgotten. It is often difficult, however, to make a child recognise the evil of an action where the effects are not immediate, and do not directly affect others. Here instruction must be left to do its work,

and every occasion must be seized to strip evil of its attractiveness and show its true nature.

A large number of our actions are naturally neutral in character, and no attempt should be made to invest these with a moral significance. The teacher must be careful not to confuse the pupil's moral judgment by magnifying breaches of the smaller matters of school discipline—such as talking, not standing or marching properly, making undue noise, &c.—and placing them alongside serious moral offences. The child must be made to understand that it is not here the act itself which is wrong, but the disobedience or careless injury of others which it implies. He must be led to see that through life we have to refrain from doing many things harmless in themselves, for the sake of the convenience and happiness of those around us.

When the child is sufficiently advanced to understand, he must be taught *why* it is necessary he should act in a certain way; but we must be cautious how far we introduce such reasons, and what opportunities we make use of. We may usefully explain the grounds of certain requirements in order that their justice or nature may be apprehended, and obedience rendered easier thereby, long before we rely upon the action of reason as a motive to right conduct. It may be said generally, that reasons for requests should be given earlier than, and prepare the way for, reasons for commands. If we allow a child to judge for himself and expect him to act rightly from conviction of responsibility, we must keep authority in the back ground. In such a degree as choice is allowed, compulsion is out of place; and on the other hand, if we compel him to accept our views as to what is to be done, we must not place our faith in the reasons for such action

having any weight with him. So far as we expect him to be guided by reason we must leave him a free agent, and look for support, not to compulsion, but to aid and encouragement. While, however, we allow reason its proper place, we should not *argue* with those under our charge concerning their shortcomings; a merely argumentative discipline is never strong, and is likely to lead to mischievous results.

Cheerful and ready submission is to be cultivated in children, but we must take care on our part to refrain from a mere despotic exercise of authority. Compulsion can only be properly used to enforce abstention from wrong doing, and is not to be counted upon to raise any inclination to act from a higher motive. That which we are compelled to do is no longer virtuous, or commendable, though it may be right; and such performance gives no inducement to *voluntary* good conduct; but rather the coercion tends in the contrary direction by rousing opposition. Too much control in any case leads to baneful results: either the child continually sighs for freedom, and when restraint is removed plunges headlong into excesses; or he sinks into a poor timid maudlin creature, discouraged and frightened by the experiences of life, and having scarcely any power of self-direction he falls an easy victim to the wiles of evil companions. Independence must not be destroyed but simply kept within due bounds.

To *know* what is right is, it is true, very different from *doing* what is right: yet knowledge is absolutely necessary as one of the conditions of the latter, and proper teaching is therefore of great value. The objects of **Moral Instruction** are mainly fourfold:—

1. To enlighten the child as to the r

kinds of duty and the grounds of action; to lay down for him certain general lines of good conduct; and to make him acquainted with the range and relative nobility of motives.

2. To cultivate the moral intelligence, strengthen the judgment as to what is right or wrong, and induce pre-consideration of the probable effects of any particular action.

3. To associate pleasurable emotions with right doing, and to arouse and stimulate the *wish* to act in accordance with the demands of duty.

4. The summing up of the results of the child's knowledge and experience into easily remembered precepts or principles, which shall serve to guide the mind by affording ever-ready tests of action, and help to maintain a high ideal for imitation.

Moral instruction must be characterised by point, vividness, applicability, connection, and interest. It must be natural, suggestive, within the child's comprehension, suited to his advancement and experience, treated in a simple direct way, and should be personal and particularised, not mere talk of theoretical morality. It should render clear to the child what he ought to do, in what spirit he should act, what are his duties towards others, and should bring out the consistency and harmoniousness of moral laws. It is *teaching*, not preaching, which is wanted; and the instruction should be largely illustrated by actual cases of conduct drawn from biography, school life, &c. Of many virtues a child forms no idea except through their exemplification in personal action. To talk abstract generalities to children, is to repel their sympathy and deaden their sensibility and intelligence, to substitute a meaningless symbolism for what should be a living reality.

Teaching which addresses the memory only can have little or no moral value. Moral instruction should dwell upon virtues to be imitated, the nobleness of adherence to duty, the reward of uprightness, the manliness of right conduct, and but incidentally speak of wrong to be avoided. It is never well to dissect vice before children; the less they are familiarised with evil the better; to anticipate their experience and talk of vices of which they have no knowledge is in a high degree harmful. The precepts of morality infused should be living, influencing, and expansive principles, associated with and interpreted by practice; not cold artificial maxims. Memorising mere precepts and rules of life beyond the child's grasp, or without proper explanation and illustration, is a species of moral cram, as useless, and as much to be deprecated, as any other stuffing of the mind with mere indigestible facts. The more compact and striking a precept, and the more fully its meaning is grasped, the greater influence it will have. Such truths well learned in childhood are very rarely forgotten; the moral dye is a lasting one, and can never be wholly obliterated by after circumstances. They are something for the mind to fall back upon, they tend to give certainty to moral decisions, and serve as a groundwork for moral reasonings. Besides Scripture teaching and set moral lessons, many school occurrences, history, stories in reading books, and some of the other secular lessons, will afford examples or illustrations, and serve to fix a moral. Unless, however, the whole lesson tends directly to illustrate some rule of conduct or moral law, it is generally better to leave truth to do its own work, than to give any distinctly moral exhortation or application at the finish. In any case, if a practical conclus

drawn, it must be the natural outcome of the teaching, and not a mere moral tag dangled at the end. Children weary at once of any moral dragged into a lesson by the head and shoulders.

'In all the ages of our life,' says Fenelon, '**example** has a most wonderful power over us, but in children it can do everything.' It is certainly one of the most potent influences brought to bear upon the child, and it must not be forgotten may act as strongly for evil as for good, perhaps more so. The moral tone and right conduct of those more especially with whom the child is in sympathy, or with whom he daily associates, are thus of the highest importance. Our manners and actions must be in accordance with our teaching; what we *do* affects children morally even more than what we *say*, and they interpret the latter by the light of the former. We must let them see that we have *faith* in what we say, and that our teachings are not mere surface opinions. 'Boyhood which detests, as they deserve, all kinds of sham and pretence, easily places itself at the disposal of' a profound sincerity; 'owns as a true guide one who lives under an authority of the rules he imposes, and whose administration of command is in itself an exercise of obedience.'[1] The great imitative tendency in children is one which every teacher should clearly recognise; and he should feel too that not only is his influence great, but that his responsibility is proportionate. There must be no double dealing on his part, no pretension to knowledge he does not possess, no attempted mystification of a pupil to hide a difficulty; he must avoid all affectation, and endeavour to his utmost to be what he would have children think him; and last, but not least, if

[1] Rev. James Martineau, quoted by Dr. Carpenter.

he would retain the confidence of children he must keep his word. Many a promise may be carelessly broken, many a threatened punishment forgotten, unless we are careful both in saying what we will do and in carrying it out. Such instances will not only weaken the child's faith in the teacher, but detract seriously from the weight attached to truthfulness. We need not fear the admission of any error into which we have fallen: the thorough honesty of purpose shown will be much more likely to increase the child's respect, while if we attempt deception we shall be pretty certain to be found out, for children are far more acute and penetrating in finding out our true character than we often give them credit for. 'The moral training received in a well conducted school,' says Professor Pillans,[1] 'from observing the example of strict and impartial justice in the conduct of the master, his kindness to all, his paternal regard for their improvement, his patience with the slow, his encouragement of the quick, his unruffled serenity of temper, and his reluctance to punish, is far more important to the pupil's well-being in the world and his character as a member of society, than any given amount of literary acquirement. The good or evil lessons which a boy draws for himself, almost unconsciously, from the master's demeanour in school, are more influential and impressive than any direct instruction.'

The force of example is not confined to cases which the direct observation of the pupil is concerned. The imitative tendency acts also when his sympathy and admiration are aroused by the recital of [illegible]ous, noble, or generous deeds. It has often be

[1] *Contributions to Education.*

that children are great hero-worshippers, and this feeling must not be destroyed. Examples, however, should be selected from real life, and as faithfully and naturally portrayed as possible: if overcoloured, or exaggerated into abnormal instances of virtue, children may perhaps be led to look upon them with admiration, but will not be moved by them at all in the way of imitation. With respect to evil example, its injuriousness lies principally in its duration. Any evil continually before a child, which serves even in a slight degree as a temptation, is likely to have pernicious effects: a chance wrong has much less power to induce imitation. It is familiarity with an attractive-looking vice which is to be dreaded.

Although instruction and example are powerful means of inducing right action in children, the practice of morality is not placed on a sound basis until such action has become habitual. **Habit** indeed is one of the most effective safeguards to morality; and the formation of good habits in children should be looked upon as a very essential side of moral training. The force of the tendency to repetition in children is very great, as shown not only by their actions, but by their thoughts, and the way in which they frequently anticipate the recurrence of things which have happened once. One performance makes the next easier. It is a law of our nature for a succeeding action of the same kind, either mental or moral, to follow in the track of the preceding one, until at last a strong tendency is induced. Habits are certain to be formed; hence we must be vigilant as to their start, check those likely to be troublesome or to neutralise the influence we exert in other ways, and take the others under our guidance and control. Just

as our earliest mental impressions are as it were burnt into the mind, so habits formed in childhood and continued for any considerable length of time are very tenacious; and though their influence may be so weakened that they may seem to be destroyed, they will frequently be found to recover vitality whenever a suitable stimulus arises. It is this which makes it of so great importance that the earliest habits should be of a helpful kind, and that those of wrong tendency should never be allowed to gain any strength. Habits are very easily formed, because here the bias is strongly in our favour, but very difficult to undo, because here the proclivity has been greatly strengthened, and is entirely opposed to us. The work of reformation, indeed, in the case of bad habits is a very slow and troublesome one, needing constant care, great patience, and much encouragement. It is well to consider how much mental and moral power has often to be wasted on such work. When once a habit of doing a thing has become fixed, it is of no use to forbid it absolutely and expect the child to act up to our command; it is impossible for him to obey all at once. Severity will simply dishearten; we must give time, and allow for many backslidings. If conquest is being gradually achieved we must be content. Nor should we direct attention to too many faults at once: the attempt to cure a number of bad habits together is likely to lead to the reformation of none. Enemies may be slain one at a time, who united would be too much for us. While, however, good moral habits duly strengthened have great power in keeping the child to the right path, and give spontaneity of action, we must do our best to prevent their usurping the place of other powers.

There is always the danger that intelligence and judgment may cease to act, and the conduct degenerate into an unprogressive mechanical routine of duty. A self-acting moral machine is not our design.

All our training should tend to make a child feel and act up to his responsibility as a moral agent. Our existence is not an isolated one, and we cannot live for ourselves alone. This the child must be made to recognise, and some preparation must be given to fit him to play his part, not only courageously, but with due attention to the rights and happiness of others. Selfishness lies at the bottom of so many of our shortcomings, and is so natural to children, that attention to its repression in our training will do much to clear the way for the development of particular virtues. The more important of these may be usefully grouped, at least so far as the present purpose is concerned, under three principal heads :—

1. *Justice*, showing itself as *candour* in our thoughts and judgments of others; *truthfulness* in our words; *honesty* in our actions.

2. *Prudence*, including industry or diligence, thrift, temperance, devotion to study, &c.

3. *Benevolence*, including such phases as love, kindness, sympathy, generosity, magnanimity, compassion, forgiveness of injuries, &c.

Of many virtues, as previously remarked, a child forms no conception except through their exemplification in personal action. Hence our teaching must refer to particular cases, and will frequently have more effect if given when any marked instance of nobility of conduct has just been brought under the attention of children, either in reading or in practice. We must do our best to cultivate a spirit of openness and *candour*

in children, lead them to attach proper value to the approbation of others, and gradually arouse in them a feeling of honour and true manliness. All actions which are dishonourable, cowardly, mean, or wrong, are to be associated with loss of confidence, shame, reprobation, and disgrace. Small vices lead to great ones, and grow rapidly if not attended to; nothing that influences the moral life of a child, even remotely, is unimportant. It is often difficult to estimate the effect of trivial things for good or evil, but a little reflection will show us how much influence small matters have upon the conduct of all of us. We must not count upon much insight into the nature of very many actions in the case of children, but we ourselves must be all the more watchful on this account in attending to their moral growth.

Want of charity in our estimate of others is one of the commonest of shortcomings. We should be very cautious how we speak contemptuously before children, and not allow them to depreciate others. They must be taught to take the most charitable view the circumstances will admit, and to bear in mind that we can scarcely ever know all the influences which led to a certain course of action, and are rarely in a position to judge with absolute justice of the conduct of others. We should avoid, too, allowing children to fall into a habit of comparing themselves with others. They are naturally prone to confine such comparisons to instances where they themselves are the gainers, and this gives rise to that spirit of conceit and self-righteousness, which effectually cramps our sympathies and prevents any true moral progress from being made. If comparisons are instituted at all they should bring out how much we fall

below the standard, attainable by earnest endeavour under conditions no more favourable than those in which we are called upon to act.

Truthfulness has been called the central pillar of school training, and certainly scarcely any part of our work is of more moment than the inculcation of the habit and spirit of truth-speaking. Children should feel that they have nothing to fear from being perfectly open with us, that the gravity of an offence is greatly increased by deceit, and should see while we condemn the fault how much we value and admire moral courage and straightforwardness in owning to it. The less opportunity is afforded children for deceit, and the more they feel the certainty of our discovering their wrong-doing sooner or later, the better. We should therefore be very careful how we make rules where we have little chance of detecting their infringement. Fear, selfishness, and conceit are three prolific sources of lying. The less our discipline is characterised by severity and undue restraint the more truthful is the child likely to be. There is also much careless lying among children, from their not feeling the heinousness of it. Even at a very early age, however, they naturally resent it towards themselves, and this should be made the basis of *one side* of our teaching respecting its evil effects. Not only should children be led to recognise the immorality of direct untruthfulness, but its more indirect and subtle forms should be set forth, and the viciousness and unworthiness of all trickery and double-dealing made clear. We should point out to the pupil the lie of wilfully allowing a false impression to be drawn from our words uncorrected, of expressing ourselves in a certain way in the hope that we shall be misunder-

stood, of offering paltry excuses for our faults, of hypocrisy or pretending we are what we are not, and of either carelessly or wilfully breaking our promises. We should not exact promises from children where the difficulties of fulfilment are likely to be too great for them. Caution must be exercised, too, how we question children where the temptation is great to give such an answer as would raise them in our estimation, or such as they feel we should like, or where the dread of exposure is likely to lead them to deceive. Wherever the response to a question is likely to lead to consequences unpleasant to the child, we must be careful not to hurry him in replying, else he will be very likely to follow the impulse to make good his case, or to try and shield himself: rather we should encourage the habit of pausing to think over his situation before he replies. Rousseau and others have recommended that when a child has told a lie we should not believe him again till he has shown himself worthy of our confidence. This, however, is a very doubtful kind of treatment, for the child is conscious that when he speaks the truth we can scarcely believe him guilty of falsehood, and in such a case our pretence of disbelief is a phase of that very deceit we wish to correct. Where we do not know or cannot prove a child is deceiving we must not show any suspicion; blind accusation in the hope that a culprit will betray himself is not to be indulged in; nor should we make use of cunning, espionage, or any underhand method of arriving at the truth. Such means are not only wrong but are sure to injure our influence, and are altogether unworthy of the teacher. We may be doubtful, but we must let it pass and trust to future watchfulness. *Talebearing* is to be discouraged at

all points: it is troublesome to the teacher, and mischievous both to informer and those informed against. It is generally done to curry favour, and leads to mean sneaking habits on the one hand, and revengeful feelings on the other. The difference, however, must be made perfectly clear between tattling about small things, or volunteering unasked-for reports about others, and the revelation of serious moral offences when called upon by the teacher to aid in putting them down. To stand by in such cases as these and see evil committed without making any sign is to become a party to the offence. Children should see that gross bad conduct puts the offender outside the pale of sympathy so far as the discovery of his guilt is concerned. To hide wrong in such a case would be to prevent his improvement and would be no true kindness to him.

Cases of direct stealing will probably be rare, but there are two forms of *dishonesty* which are very common school experiences, and which must be carefully looked after: these are copying, and the wanton damage or destruction of property belonging to others. The former will need all our care, and if due vigilance is not used in its detection, and a check put upon it wherever it is found, it will spread like a virulent disease through the school, and completely sap all moral strength. Nor should damage to property be neglected, or it will soon grow, and although the measures adopted will not need to be so decisive as in the first case, they must be no less prompt.

Indecency in words or actions will call for vigorous action on the part of the teacher. Every effort should be made to guard children in any way possible from the contagion of evil images or filthy words. There

is no solvent which will fetch the stains of impurity out of the mind when once they have become fixed. Even the less pronounced forms of indelicacy must not be neglected.

Children easily forgive, and rarely remember an injury like an adult. The bright elastic nature of a child soon throws off the effects of pain or trouble, and the sting of the wrong done him once past he is ready to make friends again directly any sorrow is expressed for the pain caused him. Children's quarrels are frequent, but they are soon made up again, and the remembrance of them rapidly fades from the mind. A child seems incapable of bearing malice long. This readiness to forgive is a valuable and lovable trait in the character of the young, and should always be treated as praiseworthy. In connection with it the child should be trained to a habit of readily acknowledging, and expressing his sorrow for, any injury he may have inflicted. As far as possible also any wrong should be righted. Intentional injuries in the case of children are nearly always the result of an outburst of passion, and they should be led to see the evil effects of an ungoverned temper and the great mischief it may lead to. Outrageous bursts of passion are a kind of lapse into temporary madness, and should be treated as such ; utterly unworthy in anyone aspiring to true manliness. It is not the emotional excitement which is the evil, this may be largely constitutional and beyond direct control ; it is the reckless action induced by allowing it to govern us which is mischievous. Our actions can be kept within proper limits, and the child must be restrained, admonished, and encouraged, until the habit of firm self-government has been formed. Nearly all passions are but excesses of feelings which

under proper circumstances and in moderate degree have a use; the thing is to prevent their obtaining dominion. They cannot be annihilated, nor would it be good for us if they could; what we have to do where they act wrongly is to oppose them by sedulous cultivation of antagonistic tendencies, and by withdrawing the attention from them as much as possible to give right feelings fair play.

Our moral tendencies and the pleasurable or painful emotions associated with right or wrong actions are doubtless inherited, in greater or less degree, like almost every other characteristic of our nature. There is thus born with us an instinctive inclination to feel a flush of pleasure when we recognise an act as worthy, and of pain when unworthy or evil. This is the germ of the **Conscience**. If fostered this instinctive emotional tendency rapidly grows, and associates itself more and more thoroughly with distinctly moral or immoral actions, until it soon forms a kind of instantaneous accompaniment, acting independently of the reason or the will. And, as the pleasure or pain indicates the nature of the action, this associated emotion comes to partake of the character of an intuitive judgment, approving or condemning what is done, and involving a feeling that we ought to do that which this moral sense or instinct tells us is right. It is by no means an infallible guide, but depends mainly for its right action upon the cultivation it has received. Where we have been led astray by our previous training the conscience follows, and where the nature of the action is for the time doubtful, and we have to pause and reflect before deciding its character, the approval or disapproval is simply the emotional ratification of the decision, and dependent upon it. The

more doubtful is the nature of the action considered, the less strongly and promptly will the conscience act. On the other hand, the more intuitive indications of conscience are—like the instinctive action of common sense—frequently more to be relied upon than the decisions of reason; and this trustworthiness is the greater the more the conscience is developed.

We can thus easily see how it comes about, that in the children of criminals, especially if wrong-doing has run through several generations, even the germ of conscience is almost entirely absent; why, if no attention is paid to morality, and the child is not taught to look upon right and wrong as matters of importance, the germ, even when present, remains dormant; why, when it is once awakened into life, and a long course of action entirely opposed to its growth is indulged in, its power rapidly shrinks into that state which we speak of as deadened; and why conscious resistance of temptation, and determination to act up to the light that is in us, strengthens its power, and we come to have what is called a tender conscience. We see also how it is that it exists in such very different degree in different individuals, and varies according to differences of conduct and belief; why the most cruel and inhuman things have sometimes been done conscientiously; how, since upon general points, and some characteristic ones, nearly all the members of a nation agree, there comes to be such a thing as national conscience, and why this depends upon the standard of moral growth and civilisation attained.

Conscience has not only a great influence over us as a guide and approver of our actions, but has much to do with fixing our morality. Without it morality would be a shifting sand, altered by every wave which

sweeps over our active life. Its proper development is therefore a matter of much concern, not only to the individual but with respect to the progress of the race. Although, then, the germ of the conscience is born with us, it depends almost entirely upon the kind and extent of the moral, religious, and intellectual training we undergo, as to what strength and correctness of action it shall attain. We should therefore lose no opportunity of associating emotions of pleasure and satisfaction with right doing, of enlightening the child as much as possible as to the nature of various actions, of strengthening the judgment by suitable exercises, and of extending and ennobling the sense of duty. The cultivation of the conscience, so that it may be a sure guide to the child and he may readily obey its dictates, should engage the teacher's attention throughout the period of school life. This training is for the most part indirect, but it is none the less important, and should be none the less sure. Left to itself the conscience takes its colour from the chance influences, good and bad, which govern us; and as this fortuitous training can never be depended upon, and is certain to be not only defective but wrong in many ways, so the conscience will be correspondingly injured.

Morality to be sound and have proper weight attached to its requirements must be founded on the great laws revealed to us in Scripture, and be intimately connected with the religious sentiments. This, however, is very different from attaching it to any special form of belief. Religious training and knowledge have a most extended and beneficial effect upon morality, and to neglect this is to throw away one of our most powerful means of influencing the child for good, apart from the value of religious

cultivation for its own sake. Directly the child recognises a law as based upon God's will, it will have a far deeper effect upon him than any number of mere utilitarian considerations.

Religious training includes, (1) instruction in Scripture truth, so as not only to give right ideas of God and of our duties to Him, but to couch them in a 'form of sound words' whereby they may readily and clearly abide in the mind; (2) the association of right emotions with religious duties, that the child may learn to take pleasure in them; and (3) the expression of the child's feelings towards God in worship and prayer. To make religious cultivation too much a matter of mere knowledge, or of emotional excitement, are equally serious mistakes. The first notion which the child receives of God must be that of a loving and all-powerful Father, ever ready to listen to the poorest and smallest of His children, and giving those things which He knows in His wisdom to be best for them. Love for, trust in, and obedience to the parent must be made the base from which we start in our endeavour to arouse similar feelings in the child's mind towards God. His attributes may gradually be brought under notice in connection with Scripture events. God's presence, His omniscience, His wise government and loving care of all His creatures, must be so impressed upon the child that the recognition of them may not only influence his actions, but lead to that dependence upon God's providence, that restful confidence in His love and protection, and that conviction of His infallible justice, which are the foundation of all true happiness. It is not by much talking or frequent reiteration of these things that this is to be done, but rather by the force of our example, and by

vividly impressing the child's mind when such subjects are brought before him. The dread of an avenging judge is not to be held before children; their natures are much too timid and sensitive for this. The religion of children should be essentially a cheerful one, its first elements reverence and love: to associate abolition of all pleasure, a melancholy bearing, or even *undue* gravity, with religious duties is to repel children, and engender an impression of weariness and distaste which it will be very difficult to get rid of. While, however, we make religion as attractive as possible, we must not allow it to be so familiarly treated as to be confused with secular things: there should be a becoming tone in the teaching, no frivolous talk should be allowed upon religious subjects, nor must we disgust the child by our frequent appeals and exhortations. Little by little must be our never-forgotten rule. The child's religious nature must be allowed to expand naturally and gradually under the sunshine of good influences. All forcing or haste will only end in mischief.

The teacher must be careful not to conduct school prayers in a careless mechanical way; far greater good results from children unconsciously imbibing the spirit of devotion through the example of others, than from any amount of direct teaching alone, necessary as this is in its own sphere. As they see we feel, they are likely to follow.

Religious instruction in school should be drawn almost entirely from Scripture; such as the great truths concerning God's nature and our relationship to Him, illustrations of His government and His love, &c., Christian duties in connection with Biblical narratives and biographies, the nature and value of prayer, and

the history and teachings of our Lord. Scripture characters afford great scope for teaching; here the personal element is present which gives life to the truth in the case of children; they are enabled to grasp its meaning and bearings, and derive from the consideration guidance in their own practice. A common fault of much Scripture teaching is the confinement of it to mere historical facts, and the treatment of these much as in an ordinary history lesson. Unless such teaching has an influence on the children's lives it loses its main value. Practical lessons may often be clearly and vividly summed up by a suitable text, which should be fixed in the mind as the outcome of the teaching—the presentation of the result in the form most likely to be useful, and most easily remembered. We should not attempt to carry our explanations into unsuitable subjects. There are many mysteries we ourselves cannot fathom. Upon many points we must be content if children obtain any true light, and leave it for time and further teaching to do the rest. Religious instruction should be made as attractive and vivid as our skill of presentment will allow. It is not likely to do much good if children are driven to it, and therefore it should not be made the subject of tasks.

The teaching should not be disputative; those special interpretations upon which we are not all agreed are just those least suitable for children. To talk about special dogmas, in order to warn the children against such doctrines, is to show them that we disagree, and therefore to very seriously weaken their faith in the absoluteness of the truths we teach. The less we force our differences of opinion upon children the better.

CHAPTER III.

THE GOVERNMENT OF CHILDREN.—SCHOOL TACTICS.

PERHAPS no term connected with school work has been used in a greater variety of ways than the word **discipline**. Generally speaking we may say, that school discipline includes all the various influences and combined agencies brought to bear upon the child, while under the charge of the teacher, in order to induce in him such a state as is most conducive to the success of education; and to so affect him in the present, as to mould his character, train him to independence, and leave him strengthened for his future career. It thus lays under contribution all means of training, and all external arrangements for carrying on school work. In a restricted sense it includes the law of the school and its administration; and it is this side which we have now more particularly to consider.

The foundation of all good discipline is the **authority of the teacher**—including both his power of control and the way in which he applies this to the child. To have due weight, authority must be recognised almost instinctively by the child, not paraded before him for his contemplation. All such outward show tends to that familiarity which

breeds contempt, and has much more of weakness in it than of strength. Children soon learn what controlling force we actually possess, and take little heed of our assertions and display in the matter. The less we talk about what we will do, the wider is the range of unforeseen resources left open to us; and the originality of our devices has often great influence in itself. We can also better adapt our methods to the needs of the moment when unhampered by previous declarations. It is a serious mistake ever to let children see the limit of our means; the more varied they are, and the less frequently employed, the more effective will they prove; we should therefore be sparing of them. The larger the reserve of power, and the more children feel that this is of indefinite extent, the less will they be inclined to try conclusions with us as to its limit.

To administer discipline well requires knowledge of children, careful observation, keen insight, much sympathy, a large stock of patience, and considerable experience. It is not, as seems often to be supposed, a matter of mere force of character, though this is an important factor. Justice in dealing out praise and blame, charity in interpreting motives, consistency of action, and mercy in punishment, all have much to do with the successful exercise of authority. Even the *appearance* of favouritism must be avoided, but this must not be confused with the giving of just commendation, or with letting children see that we are most pleased with those who strive earnestly to do their duty. Favouritism is shown more frequently in allowing ourselves to be biassed in our estimate of conduct or success by our good opinion of some, than in bestowing undue privileges and rewards.

The teacher needs all his skill and discernment to discover the child's weak points, to say just the right word and do the right thing to rouse him to a sense of his position, and to guide him in the right direction. Nothing damages authority more than injustice, especially when it arises from deliberate carelessness. Rash decision when the teacher is called upon to decide a case of dispute, and jumping hastily to a conclusion respecting guilt without due examination of the circumstances, are certain to seriously weaken the confidence of those under his care. He should never act as though what the child may feel or think were not worth consideration. Any little pleasure requested should be granted whenever it can be conceded without harm to the work. It is mischievous to cross children for the sake of accustoming them to opposition. There is a good deal more than is often thought in the way we accept little services from children; the sympathy and affection aroused by pleasantly and graciously accepting anything children do for us is very great, and nothing gives keener pleasure to them than to be allowed to perform little offices for us if they see their attentions are appreciated.

Decision in the teacher is essential to successful management of children. Very frequently measures have to be settled almost on the instant, and while the teacher is trying to make up his mind mischief is perhaps going on and becoming more and more difficult to stem. A firm, confident, restrained manner is an important element in authority, and is at once recognised by children as a mark of power. Weakness and indecision are great temptations to the child to resist control. It is far safer in matters of discipline to err on the side of strictness than of laxity. A

child likes good discipline, and respects thoroughly a wise and decided control. It need never be feared that a firm but temperate exercise of authority will alienate a child's sympathies; a weak foolish indulgence, which admits licence in the place of true liberty, is much more likely to accomplish this. 'It is one of the mysteries of human nature,' says Abbott, 'that indulgence never awakens gratitude or love in the heart of a child.' Children must be governed, not coaxed. Control within proper limits is natural and wholesome for them. No amount of imploring them to do right will ever accomplish the purpose, and it very easily becomes positively harmful. On the other hand, restraint must not be carried too far; we must remember it is not the course which is easiest for ourselves, but that which is most beneficial to the child, which is to be followed. Mere quiet is not good order. Allowance must be made for the natural characteristics of childhood; many of their faults are but effects of their age which time will cure. To blame a child for being active, careless, restless, variable, and apt to get into mischief, is to blame him for what he often cannot help. To keep these within bounds, without destroying his vivacity and light-heartedness, is not always easy, but it is the object to be aimed at.

One of the commonest faults of discipline is the **want of uniformity** in requirement—the absence of steady incidence. A spasmodic government, violent and weak, rigid and neglectful, by turns, is never satisfactory. A child soon learns to calculate chances of escape, and if these are considerable a premium is at once offered upon disobedience. Certainty of detection is a very stronghold for the teacher.

Threatening does little good; children have little power of realising in the present either future pleasure or future pain, and the threat soon ceases to have any effect upon them.

There is no more important thing to secure in the government of children, both for their present and for their future good, than a prompt and willing **obedience**; at first to the authority of the teacher, afterwards to the sense of duty. The transition step is a critical one. There is great difference between obedience to the influence of authority and to mere compulsion. A government of sheer force is the lowest and least worthy of all; and the teacher should never rest content till he has passed to a higher and better stage. It is not a blind abject submission that we want, but a cheerful obedience rendered from right motives. Children should know exactly what is required of them, and be led to act up to the spirit rather than the letter of requirements. Many faults of omission arise from imperfect understanding, or from want of attention. School rules there must be, but they should not be so many as to be difficult to bear in mind, and should deal with important matters; the more certain and unmistakable they are the better. Every extra regulation is an additional burden both to the child and to the teacher. Neglected rules are much worse than none; the wiser course, therefore, is to consider carefully the necessity and working of any new regulation before we promulgate it.

Commands should be given in a clear firm tone, there should be no hesitation, no doubt as to what is meant. It is the impressiveness, the decided ring, which produces effect, not the loud tone. The teacher should

be on his guard against shouting at children; the attempt to 'still a noise with one still greater' only adds to confusion. Once an order is given so as to be distinctly heard, obedience should be waited for and insisted upon. Reiteration of commands over and over again, with increasing force of voice, is a sure sign of weakness, and the child knows it. Much bad order results from giving commands one after another without proper attention to their being carried out. Nothing, again, is more certain to induce neglect than to set some particular work, or impose certain tasks, and never properly examine into the result.

When our commands refer to cessation from some action we must be careful to give a child time. It is sometimes impossible for him to turn his nervous energy at once into another channel. His not ceasing instantly must not be looked upon as intentional opposition. Have a little patience, and probably all will be well. Habitual tricks are very difficult to restrain.

Perhaps there is no fault about which serious mistakes are more frequently made than about **obstinacy**. There are several phases of mind which go by this name, and the greatest caution must be observed that they are not confused. It is sometimes mere determination not to be moved from a certain course of conduct or form of belief which is supposed to be right, but which has been adopted without proper consideration. The mind simply shuts itself up, and is with great difficulty moved to see things in any other light than the chosen one. This is not uncommon in adults, but is unfrequent in the case of children. Enlightenment is what is needed: you cannot convince a child by punishment. There are also times, again, when children seem quite dazed, and no longer

have their nervous machinery under control; the teacher should be very careful he does not further stupefy a child in this state by punishment. There is also a constitutional sullenness and heaviness of disposition which is often called obstinacy: the mind easily drops into a state in which it is scarcely enough awake to realise the nature of what is required of it; pain seems only to confuse it still more, and increases the dogged determination to bear punishment as an unavoidable misfortune, without ever awaking to consciousness that something is to be done. Such cases need most skilful treatment; it is a grievous error to enter into combat with such a child; encouragement is far more frequently needed than punishment, and, even if the latter seems from a careful judgment to be needed as an unpleasant association, the teacher must never start with the determination of making such a child obey. Lastly, there are the cases where, from previous mismanagement, a strong spirit of opposition to all control has been set up. Such children are perfectly conscious what they are about, and are simply determined to make a struggle for the mastery, even at the cost of pain to themselves. Here there is nothing for the teacher but to accept the contest, *if forced upon him*—it is the height of folly to seek it—and to come off victorious. Before any punishment is inflicted, however, sufficient time for reflection should be given. This will often have a good effect upon the child, and will allow the teacher to very carefully consider the position of affairs, be certain he has made no mistake, and make up his mind exactly what he will do. Except in the lowest of schools, and where the teacher's weakness is an inducement, such cases are rare.

The trials to the teacher's patience and the sources of vexation in school-work are numerous, and particular care is necessary that they do not affect the temper or render him callous. **Ill-temper** almost always means injustice; it is certain to be strongly reflected in the children, and the discipline is weakened by their not being able to reckon upon the effects of certain actions. If our control is to be strong there must be no capriciousness; the more certainly children are able to calculate what the teacher will think or do with reference to his judgment of their conduct the better. But while passion and ill-temper are to be carefully avoided, *displeasure* within proper limits—righteous indignation at evil—is often a useful instrument of discipline. It presupposes for its successful employment attachment of the child towards those who govern him: the more he cares for their good opinion the more powerfully does displeasure act, and the smaller is the amount of it that will serve the purpose. In expressing displeasure we must be sparing of words, and avoid most carefully getting into a habit of continually rating children about all sorts of faults. This blunts a child's feelings, renders him callous to reproof, and hardens him against any exhortation we may offer. Scolding and weakness generally go together. A teacher finds his control slipping away from him, and tries to make it up by frequent reprobation: but this only increases the evil, and keeps both teacher and pupils in a constant simmer of vexation and discontent. We not unfrequently worry children very unnecessarily, and any government which produces continual irritation is bad; it will not only act prejudicially on the child's disposition, but effectually defeat its own object. A scolding

'nagging' teacher can scarcely be conscious of the harm he is doing. We should not apply unpleasant epithets to children, or get into a habit of attributing vices to them; we are very likely to complete thereby an only half-formed evil tendency, and to strengthen wrong-doing rather than to repress it. A child who is continually being called a liar is pretty certain to become confirmed in the vice. Unjust and unkind words often sting deeply, and rankle in the child's mind long after the cause which led to them is forgotten. *Sneering* and sarcasm should never be used with children; the malevolent feeling accompanying them renders them totally unfit instruments for the teacher's use. Ill-nature rapidly alienates the sympathy and affection of children. Even the use of *ridicule* needs caution, and should always be good-humoured. It is an edged tool which needs skill in the handling, and we must not suppose that because it is very effectively employed by some it is therefore a safe and useful weapon for everybody.

The **practice of making examples**, as it is called—of holding up some wretched offender for reprobation before the whole school—is to be condemned. It is cruel, in nearly all cases it hardens the offender, and is likely to do more harm than good to the onlookers. When public mention is made of a fault, it should be severed from connection with the guilty person, and spoken of at such a time and in such a way as to direct the children's attention, not to the condemnation of an offender, but of a vice.

A **habit of industry**—of regular vigorous work—is one of the most beneficial and far-reaching of those which come within the scope of school cultivation. Its great value arises principally from the importance of its immediate results, from its influence on the

future well-being and prosperity of the individual, from its powerful and salutary action on the school discipline, and from the weighty moral effects which are mainly the result of the continuity of effort and the steady self-control it involves. Every teacher knows the value of keeping the children diligently at work, and how certainly difficulties and troubles arise directly the children are left without employment. He who cannot keep children's minds occupied with what they are about is not likely to keep good order. Idleness is the parent of a long train of evils; restlessness, weariness, mischief, carelessness, and discontent, are only a few of them. An idle child is never happy; absolute inactivity, being entirely opposed to his nature, is a serious punishment. There is, however, employment and employment. We should not dishearten a child by setting too much to be done at once. It is a mistake to alarm children by the magnitude of the task to be performed; put before them a little at a time, and they will astonish themselves by the amount they can get through. Where it can be managed, the work should be so arranged that any neglect will at once become apparent. 'Idle children,' says Miss Edgeworth, 'are eternal petitioners,' and we may add frequent grumblers. A grumbling discontented habit is a serious source of unhappiness, and its formation should be prevented if we would have the child grow under the best conditions.

Many educators, from Salzmann downwards, have insisted that the teacher must look to himself if children go wrong; and although he may not be willing, nor would it be just, to credit himself with all their faults, the habit of looking to his own actions and mode of treatment first is a useful one. It will

be well for him to make up his mind that no child is so bad but what some way of reform may be found, and that if he fails it is that he has not discovered the right method.

If he would have his school discipline satisfactory, it is not alone to the more important measures of government that he must look, but also to the very numerous and often independent matters of detail; which all exert their influence for good when attended to, and soon show points of weakness if neglected. Caution must be exercised that nothing in the arrangements and conduct of the school affords opportunities for or inducements to wrong doing. It is necessary to discriminate clearly between noise of work and noise of play: absolute quiet is unnatural, and shows a rigid artificial restraint, rather than a wholesome government. The teacher should learn to recognise at once from what any noise proceeds, he should know whether it ought to be modified or suppressed, and act accordingly. There must be no idle moments for children strongly inclined to activity; troublesome ones must be kept well in view, and care be taken that the mischievous do not congregate together attracted by common sympathies. The eye must be made to perform its share in the work of control, sending many a warning or reproof, and convincing the pupils of a vigilance that instantly detects anything wrong. Little things must be looked to, sweeping general measures avoided, the influence of the master spirits of the school made the most of, the disciplinary value of play recognised, punctuality insisted upon, and the government so conducted that while the general good is the first consideration the benefit even of individuals is not overlooked.

CHAPTER IV.

MOTIVES, AND THE TRAINING OF THE WILL.

ALMOST from earliest infancy, as we have seen, children begin to recognise certain actions as leading to pleasurable or painful results, and feel an inclination to performance or avoidance accordingly. As the child grows, various phases of these moving powers come into play, and serve as stimulants to the will or controlling power, in order that through it the impulse may be satisfied. When these inducements thus consciously influence us, so that we intentionally act in order to produce a certain result, we speak of them as **motives**. They receive their character from the nature of the result contemplated: thus where the intention is bad, as in the gratification of revenge, they are bad; where the end aimed at is in accordance with the dictates of morality, they are good; and where the action has no moral significance, they also are indifferent. What we intend to accomplish by an action is therefore an important element of any judgment as to its moral nature and value. All children feel some stimulative influences; but as they differ very considerably in this respect—some being easily moved by inducements which are quite inoperative in the case of others—the thing is to discover which incentives act most powerfully and

least harmfully, and which among such as will successfully influence the child are the highest and best in character. The means employed will vary also with the moral progress of the child: it is absurd to treat all children alike, or the same child in the same way at all times, and a very large proportion of failures is certain to result from such an attempt. Some of the most hopeless cases met with in school are those 'sauntering' moody children, who seem to take no interest in such things as move other children —not even in play.

Much skill is required in inducing the action of suitable motives of the lower kind, so that while the child is encouraged to present effort he is at the same time gradually brought under the dominion of higher self-acting influences. The usefulness of the natural consequences of action, where these are painful and so serve as deterrents, has been pretty fully recognised by educators; but far less stress has been laid upon the equally if not more valuable *pleasant* consequences, which naturally result from right action. We must be very cautious, in the employment of artificial motives with the young, that we do not make so frequent an appeal to such influences that the children cease to act except under stimulation. This excessive use of lower motives weakens the will, makes the child the slave of external circumstances, and puts happiness upon an utterly false basis. The stimulus applied must be as exactly proportioned as possible to meet the case. Very frequent errors are made in this respect, a powerful influence being brought to bear when a very simple one would have served. We do not need a sledge hammer to drive a small nail, and are pretty certain to bruise and spoil the

wood if we employ it. Much power is lost also from want of attention to the evil influences which surround a child, and which often effectually destroy much of the effect of our positive training. These opposing forces must be very carefully looked to, and their power as far as possible directly neutralised. It is really these wrong tendencies which at bottom give us all the trouble.

The following are the principal motives which the teacher may usefully bring to bear upon the pupil, for the purpose of inducing vigorous action, of keeping him to a right course of conduct, and of so habituating him to good influences that they may strengthen the will and guide it to act in accordance with right inclinations:—

1. Pleasure arising from active employment, both physical and mental—Force of habit. The little child's love of activity is one of the earliest aids to education, and properly used may be made to play a valuable part in school training. The instinct acts strongly, and, if we do not properly direct it, will soon run into wrong channels. If we can only so arrange the pupil's studies as to keep him suitably and briskly employed—giving both body and mind a proper share, and varying the mode of exercise directly we see he is wearied with what he is about, or that a change would be good for him—we have done much to make him happy, and create in him that liking for work which is one of the first conditions of success. Every effort congenial to the child's nature brings its pleasure, which gives strong inducement to still further exertion, and, as we have seen, not only strengthens the habit of concentrating the attention, but is one of the most powerful means of impressing the memory.

With dull lethargic children, to arouse their interest in play is generally a step to better things. The force of habit in influencing our actions and giving a strong tendency in a particular direction, and the importance of making use of this in training, have been already dwelt upon.

2. Pleasure arising from simple commendation — Praise, approbation, esteem. The feeling of gratification which comes from finding our efforts appreciated —and if of sufficient importance made the subject of commendation—by others competent to judge of them, exerts a strong influence upon nearly all of us, and acts still more powerfully in the case of children. Not only do they feel the happiness derived from approbation, but also that arising from the consciousness that their conduct is a source of pleasure to those above them. The latter is with children often the more powerful element of the two. This shows us that to be effective our praise must not be the mere expression of just approbation which a stranger would accord to their actions, but must be accompanied by that hearty sympathetic ring and smile of pleasure which assure them that we are gratified by their endeavours. The use of praise may be made a powerful engine for good in the hands of a judicious teacher, but he must steer clear, on the one hand, of allowing it to degenerate into that indiscriminate commendation which soon becomes a serious source of harm ; and, on the other, of crippling his resources by using it in so niggardly and cold-hearted a manner as to discourage children. They are easily damped, and when once they feel it is of no use trying to win the teacher's cordial appreciation, they take little or no interest in their work, and soon begin to give trouble.

The over-use of praise draws off the attention from that for which the praise is given—thus disguising the true merit of the action—and soon leads children to crave for it as an end in itself independent of merit. When this state has been induced they greedily absorb praise from all sides, lose all discrimination as to the kind of commendation offered them, and are easily led away into wrong actions by the flattery of the vicious who have their own ends to serve. Children must be taught that praise is worth having only so far as it is deserved, and that the commendation of those who are best capable of judging of their conduct is that which is most valuable. 'The esteem of the wise is more estimable than the applause of the many.' We must also be careful not to spoil the effect of a moral action, by giving praise to such an extent as to become an *equivalent* for the self-denial exercised.

It is encouragement which is needed, and in many cases it is sufficient to show our appreciation by our sympathy and pleasure, and by increased confidence—in a word, by our esteem—without any direct expression of praise. The language of empty praise or mere compliment should never be used with children. The character of the child will often considerably modify our use of praise; the timid and hesitating needing it much more than those of stronger temperament. With those inclined to conceit it should be used very sparingly, and in such cases we may direct it principally to the encouragement of a more modest bearing; but at the same time we must be very careful not to disparage or misrepresent their actions.

3. Gratification arising from permanent marks of commendation in connection with the pleasure of posses-

sion—Objective rewards, prizes, medals, &c. Rewards, of the kind here contemplated, differ from praise and esteem in that they should be given for more distinguished conduct or more sustained effort, should from their nature yield more permanent pleasure by acting as mementos of past excellence, and should serve as continual incitements to still more praiseworthy efforts. Their true worth thus depends not upon their intrinsic value, but upon the amount of effort needed to secure them, the consequent weight of commendation they carry with them, and the fact that they afford proof which may be produced at any time of past merit. When these are the things upon which most stress is laid it is not difficult to pass to rewards of a higher kind. Where their monetary value is almost the sole thing thought of, or they serve simply as certificates of ability, or even of the possession of a certain amount of information—except in so far as this is a measure of voluntary effort—their moral worth is very small indeed; and it is objected that in such cases their character is often debased by their partaking of the nature of bribes. They appeal to the selfish side of our nature, which is generally over-developed already. Prizes given for continued good conduct are very serviceable—where proper care is taken to secure as just an award as the conditions of the case admit—since here all have equal chances. Those given for one special competitive examination are least useful. They generally go to the strong who need little encouragement, and pass over those to whom they would do most good. They usually affect the work of only a very few; the great majority know they have no chance, and consequently make little effort. The far better plan is to award them on the

results of daily work during a given period ; here there is a chance that the patient persevering tortoise may outstrip the swifter but more uncertain hare. Or again, it is sometimes useful to fix a sufficiently high standard and reward all who work up to it. A university degree is thus a reward of the best kind.

Prizes should be of sufficient value to make them worth preserving, and should clearly set forth for what purpose they were given. Books are one of the best forms, money the worst. Commendatory certificates are also a very useful kind of rewards. Every competitor should be made aware of the exact conditions upon which the prize is to be given, and when once these have been fixed they should not be altered until after the award has been made. Rewards should not be distributed in a cold perfunctory manner, but in such a way that it may be seen that we are fully conscious what we are bestowing, and that our cordial commendation goes with them. Beyond a certain point the more numerous the prizes are the less beneficial is their effect. There is always the danger to be guarded against of directing children's thoughts to the wrong motive, of making them act from love of gain instead of from duty ; and when prizes are so frequently brought before their attention as to fix this wrong tendency, it is difficult to get them to act from higher motives. Where, again, a very large number of prizes are given at one time they are not felt to confer any distinction : what is within almost everybody's grasp is not much cared for by any. Prizes which have cost little effort give correspondingly little pleasure, beyond that of mere possession, and have a dangerous tendency to foster conceit.

The hope of future reward or distinction may be

made to act over long periods in the case of adults, and give such an amount of pleasure by anticipation as to considerably lighten labour. But children are creatures of the present, and, as we have seen, have very little sense of futurity; hence the contemplation of future pleasures makes little impression upon them, and soon loses all hold upon their minds. Prizes therefore to be of any use as a spur to effort should not be placed at a distant period, such as a year, or they will have no effect until just before the time for awarding them comes round. They are better given for effort during a comparatively short period, and should be distinctly brought before the children's attention when the time commences. Annual distributions of prizes, it is to be feared, are often used as a means rather of pleasing the parents, than of moral influence on the conduct and work of the scholars.

Increased confidence, employment in offices of trust, greater independence of action, are all important means of reward, which may be made of great service by a skilful teacher; and if properly used are highly valued by children. A point which should always be looked to in connection with all kinds of rewards is the inculcation of a generous spirit, and the avoidance of mean petty jealousies. The latter often make up no inconsiderable share of the unhappiness of life. To learn to take pleasure in the well-doing and success of others is a most important and beneficial training to the child.

4. Pleasure arising to children from the approval and sympathy of their fellows.—It is often astonishing what an amount of trouble, self-denial, and even pain, a child will undergo to stand well with his fellows, to be thought courageous, generous, or skilful, or to gain

influence with them. The example and views of those who are looked up to as leaders in a school, and whose opinion is thus valued by the others, is thus of great consequence. They practically settle what the *public opinion* among the scholars shall be, and where this is distinctly on the side of law and order it is a powerful influence for good; where it is not it acts with similar strength for evil. If a child knows that a wrong or mean action will at once bring upon him the condemnation of his comrades, he is deterred from doing it; while the fact that any very decided act of virtue will equally win their applause, adds a strong additional incitement to its performance. This sound public opinion is an ever-present check upon wrong-doing, and acts most powerfully just where the direct control of the master is least able to reach. To see a school well conducted in the master's absence speaks strongly for the wholesomeness of the discipline, and for the care with which it has been administered. A few children may at times be inclined to break out as rebels, and a larger number to occupy the position of 'armed neutrals', but where the majority are the allies of the teacher things are not likely to go far wrong.

5. Emotions of satisfaction from progress, conquest, or successful competition—Emulation, &c.—The feeling that he is progressing acts as a strong and useful stimulant to a child to make increased effort. Every difficulty mastered not only leaves less to be overcome, but gives a sense of strength and of pleasure at the victory which incites to greater vigour in the next attack. Competition, within due bounds, gives animation and interest to the work, rouses dormant energy and strengthens the resolution, shows a child where

his strength lies and how he stands with respect to others, and in most cases tends to decrease conceit. It is the teacher's business to utilise all the forces at his command, to direct their action into proper channels, and to remove any serious discouragements. The spirit of *emulation*, arising out of the struggle of competition, when properly directed is simply a feeling of friendly rivalry, of wish to excel without disparaging or injuring others. Emulation is a great spur to exertion, and with proper care may be usefully employed as an incitement both to moral and intellectual effort. Too severe competition is baneful; it keeps the child's attention fixed not upon the value of the end aimed at and the effort made, but simply upon outdoing others; it is very likely either to strain those who are anxious but not strong, or to effectually discourage them; and it encourages those evils which have led to the condemnation of emulation, viz., jealousy, dislike, and uncharitableness. It is foolish, however, to throw away the use of emulation because it may be abused. It is a natural feeling and is certain to act where numbers are trained together; the wiser plan is to take it in hand and turn it to good uses. 'A cook might as well resolve to make bread without fermentation,' remarks Wood, 'as a pedagogue to carry on a school without emulation.' It rarely needs fostering, more often restraining within healthy limits. The important point is to direct its action so as to encourage the proper kind of effort; it should not be a mere rivalry for places or prizes, but anxiety to excel in well-doing, and children may be led to feel its influence in reference to outstripping their own previous achievements as well as in the wish to outvie others.

6. The recognition of moral obligation; pleasure

arising from right action. — Sense of duty; sense of worthiness.—'Sense of duty' is a convenient expression including the recognition of various obligations as wide in range as action itself. It is a short formula covering a great variety of cases. When, again, an action is performed on account of the recognition of it as a duty, there follows naturally an emotion of pleasure at having done that which is right, proportionate to the value of the act itself. Associated with duty there are thus two motives, naturally coupled together, but distinct in character: viz., the feeling of moral obligation, and the sense of worthiness arising from virtuous action. These are often spoken of under one common term. Sense of duty is altogether too comprehensive and abstract to be at first anything more than a mere name to the child; appeal to it as a motive can only be of any use in proportion to the child's understanding and moral advancement. Before anything else can be done he must learn what is meant by duty, and this is at first nothing but the recognition that he *ought* to do a thing *because it is the will of another*, who is better able to judge than himself. By and by he comes to recognise that the decision of those over him as to what ought to be done is not arbitrary, but is based on certain considerations that they themselves obey; and by learning gradually why his elders act he comes in the end to discern why he should act himself. Seeing others do things, often at pain or inconvenience to themselves, because they feel it their duty, is an important means of enlightenment to the child; especially if suitable occasions are seized to make clear to him, as far as he is able to bear them, the reasons which led to such a course of conduct. Hence association comes very powerfully into play

in determining the child's progress. It is by means of the combination of instruction and contemplation of action, aided by the action of the conscience, and followed by exercise in accordance with the teaching thus given, that nearly all the earlier training to act from a sense of duty must take place. Thus the obligation arising from the will of the parent or teacher must be very gradually transferred to law, as a thing binding upon the child independently of their wishes, though in accordance with them; the will of that Heavenly Father, whom he has learned to know dimly, being pointed out to him as the source of all law, and the more important phases of it necessary to our existence and happiness being gradually made clear to him.

When the child has learned to recognise what duty is, and that its essence lies not in assent but in obligation to act, direct instruction may be given respecting duties he has not yet been called upon to perform, but which his past experience enables him to understand. He must be shown that we have duties to perform to ourselves, to others, and to God. The instruction must not be a mere catalogue of things the child must do, given either by books or by oral instruction, but each duty must be explained and applied so as to meet his daily requirements, and must be illustrated by the life he sees around him, until he obtains clear ideas of what is becoming, right, and honourable. Steady adherence to right and a high sense of honour are ever to be put forward as the characteristics of true manliness. As he comes more and more to act in accordance with what his conscience and his knowledge tell him to be right, the pleasurable accompaniment arising from the fulfilment of duty increases in like

degree, and gives an additional incentive to right conduct. In such degree, therefore, as the feeling of duty is developed in the child's mind, to such an extent will it be valuable to appeal to it; and within these limits every such appeal will strengthen its action as a motive. When this highest and best of motives will serve our turn, it is a mistake to make use of lower ones; but even the best of us fail often to be moved by it, and in the case of children too much reliance must not be placed upon it alone, beyond its proved strength. It must be remembered that with them the personal element in authority is scarcely ever entirely absent. Where the sense of duty cannot be expected to act, it is better not to appeal to it at all, but to use other means; and where its employment is of doubtful effectiveness its action should be supplemented by motives of a lower kind. The best motive which the circumstances will admit of is the one to which appeal should be made; and the lower ones should be so used as to lead gradually up to those of higher character. We must be content with small things at first; to get a child to act from principle at all, even if of low character, is a great point gained. Motives will often need to be varied in order to suit diversities of character, circumstances, and the nature of the action required. What may be useful as a spur to intellectual exertion, may be inoperative in the case of moral effort. The standard of duty exacted should never be so high as to dishearten children, or strike them as altogether imaginary, and they should be encouraged by being shown that duty not only leads to the commendation of all right-thinking men, but that it has God's approval also and is the foundation of all real happiness.

The Will is the power by means of which we exert control over our physical and mental action, the directing agency whereby we govern both our thoughts and conduct. It thus includes a purposive determination, and the ability to carry this out by steady effort in spite of opposing tendencies. It sets the human powers in motion in all cases where they do not act automatically, and changes their mode of working to suit the varying conditions of performance, or stops their operation altogether when required. It acts largely through the attention, by powerfully directing the mind to what should be done, and by withdrawing its contemplation from any inducements which may act in opposition. This is another reason for the careful training of the attention, which has such a beneficial influence in many different ways. The will does not create energy, but brings such as we possess into play, renders it subservient to our needs, and, where properly employed, directs it into such channels as will tend most to our general well-being. Without the power to determine upon our conduct, and to carry out such determination, freedom of action would vanish; and we should sink to the level of mere pieces of mechanism, controlled entirely by circumstances.

The will is stimulated to activity by certain incitements or motives of various kinds and power; the feebler it is, and the more desultory its action, the less likely is it to be stirred by internal impulses, and the more necessary external influences become. In children the energy of the will is very small, and it needs therefore to be aroused and strengthened by suitable exercise induced by motives brought to bear upon it from without. The capability of high

intellectual or moral action is useless unless we have the power to voluntarily put it in force and direct its working, and the training of the will is therefore a matter of the utmost concern to the teacher, if he would lead the child to act freely, vigorously, and well, for himself. 'The education of the will,' remarks Mr. Morell, 'is really of far greater importance, as shaping the destiny of the individual, than that of the intellect.' It has to be trained in such a way as to act in response to the best motives, to lead to ready self-control of the intellect and the conduct, to heighten moral courage in the attack of difficulties, to give steadiness of purpose in spite of opposing forces and temptations, and to prevent that vacillating weakness which allows the individual to be swayed hither and thither by every impulse which arises. To properly discipline the will, and strengthen its connection with the reason and the conscience, is far from an easy task, and will need all our care, especially with respect to the motives we present, the guidance we afford, and the amount of freedom we allow. We have to so cultivate it that it may take the place of external control; and as its power increases this should be in like measure withdrawn. Where blind obedience to authority is all that is looked for, and this is continued long after it should have been relaxed, no wholesome growth of self-control can take place; and thus it is that those accustomed to severity and undue restraint rarely turn out well when they come to act for themselves. Either they are broken-spirited, which is a thing to be dreaded, or having come to loathe control without having learned to regulate their own conduct, they rush into all sorts of excesses directly the pressure is

withdrawn. The difficulties of educating the will are especially great in schools, where we have to train numbers together, inasmuch as the very varied treatment necessary to anything like complete success can only be given in a considerably limited degree. We have to be content to adopt the best general measures we can devise, with individual applications wherever opportunities offer. Children should be strongly encouraged to adhere decidedly to that which they know to be right, accustomed to steady perseverance in effort, taught as far as may be to weigh well the consequences of what they are about to do, and led to control their impatience and temper; while such motives as they are capable of feeling should be brought in by the teacher in aid of their will, where its power is in danger of giving way, or where support would serve a useful purpose. Intensity of emotion must not be mistaken for strength of will; passion may be of such power as to completely swamp the will and carry us away in spite of ourselves. Sudden outbursts of this kind show weakness of will, not strength; and the child must be led to curb the exhibition of his feelings within reasonable limits. Nor must obstinacy be confused with strength of will; if the result of will at all, it in all probability means that the *general* power of self-control has been weakened by the direction of nearly all force of will into a wrong channel. It is the power of using the will in all useful directions, so as to give control over the body, the emotions, the intellect, and the conduct, which we have to cultivate; and it should not be forgotten that it may be developed in some directions only, and seriously neglected or misdirected in others. An individual may be able to control his intellectual

operations with ease and certainty, and have scarcely any moral self-government; while, on the other hand, he may have great moral strength, and be quite unable to control his thoughts and attention, or the exhibition of his emotions. The usefulness and value of the will thus depends not upon its actual strength, but also upon the directions which are habitually given to its working. Habit and will act and react upon each other, and whether the will has been accustomed to be roused by good influences or bad often determines whether its control shall lead to right conduct or to evil. *The highest exercise of will,*' says Dr. Carpenter, 'is shown in those who are endowed with vigorous intellectual powers, and whose strong emotional nature gives force to all their tendencies to action, but who determinately fix their attention on the *divine ideal*, and steadily endeavour to shape their character and direct their conduct in accordance with it. This is *not* to be effected by dwelling exclusively on any one set of motives, or by endeavouring to repress the energy which is in itself healthful. Even the idea of duty, *operating alone*, tends to reduce the individual to the subservience of a slave doing his master's bidding, rather than to make him master of himself; but it gives most powerful *aid* in the acquirement of that power of fixing the thoughts and affections on "things on high," which more effectively detaches them from what is earthly and debasing. *It is* by the *assimilation*, rather than by the *subjugation*, of the *human will to the divine that man is really lifted towards God.*'

CHAPTER V.

THE NATURE AND USES OF PUNISHMENT.

FEW things in school work are of such weight and importance, few are so beset with difficulties, as the clear appreciation of the province and uses of punishment and its proper administration. To use punishment in such a way as to conduce in the highest degree to the welfare of the individual pupil and the benefit of the general body, to render it effective in removing such obstacles to the ordinary work as fall within its scope, and at the same time to avoid allowing its administration to become so burdensome as to use up an altogether undue share of time and attention, will need all the wisdom, patience, skill, resource, and experience, which the teacher can bring to bear upon the work.

Laws and regulations are useless unless they are supported by some means of enforcing obedience, where they are wilfully or carelessly disregarded; hence, when persuasive measures and better motives fail to secure conformity, punishment of some kind, sufficient in degree to effect the purpose, must step in. Whatever moral suasion may accomplish in the domestic circle it is certainly insufficient alone to serve the purposes of school discipline. To try and coax children into right-doing without firm measures of control and

proper assertion of authority, where these become necessary, is to prevent the growth of that wholesome respect to law and that recognition of the urgency and importance of acting in accordance with the dictates of duty, which are so essential to any training worthy of the name ; to fail, in the vast majority of instances, in giving any real power of self-government ; and to waste a large amount of time and strength without any adequate result. Where such persuasive inducements as can be wholesomely brought to bear upon the child will serve our turn, punishment must not be employed ; and where a small degree of punishment will answer, a large amount is mischievous in proportion to the excess. Strong measures are valuable only when weaker ones have been tried and failed. There is much truth in a remark of Dr. Bell's, that 'a *maximum* of improvement cannot be obtained without a minimum of punishment.' To use one form of punishment for all cases, or the same degree with all children, is absurd : such a course increases the chance of failure or injury, and decreases the range of usefulness.

To be thoroughly effective punishments must be prompt, administered in earnest, clearly understood, proportioned to the degree of offence, suited to the character of the child, and in keeping with the nature of the fault. They should be given seriously, so as to be impressive ; should be sufficiently strong to produce the required effect ; and should serve both for correction and monition. When they are too mild they are treated with covert contempt, and when too severe are liable to break the child's spirit and almost certain to act prejudicially on his disposition. Sham punishments are as ridiculous as they are harmful. It is not the severity of the punishments inflicted

which has most effect, but their certainty and consistency, and the recognition of their justice. Severity may produce outward conformity whilst the most rebellious spirit exists beneath, and the child be less inclined than ever to act rightly of his own accord. That punishments should be so graduated as to accord with a natural scale of blameworthiness is of great moral importance. An absolute amount of punishment for a given fault should rarely or never be laid down; as in such a case, injustice will certainly be done to some. The same punishment will be a cruel excess applied to some children, which with others would be useless to accomplish the end aimed at. The teacher should leave himself as much discretionary power as possible, so that he may be guided by the needs of the case: the moral condition of the offender, the nature of the motives which urged him, the strength of temptation, and the extent of his contrition, must all have due weight if the punishment is to lead to the most wholesome and lasting reform. There is always danger that we may be led to measure the child's culpability by the amount of our annoyance or vexation, and not by the gravity of the offence. Our personal likes and dislikes, or any feeling which is likely to mar the justice of our award, must be carefully eliminated from the question. In investigating a case we must not proceed as though we were anxious to convict the child, but rather so as to show we should be glad if his innocence could be established. Nor must we allow ourselves to judge children by the standard we should apply to adults; much allowance must be made for their weakness and want of experience, and we shall be more likely to act in the most beneficial way if we carefully search for the

source of the fault, and apply the remedy if possible there. It is scarcely necessary to say that wrong-doing or shortcoming from ignorance of what should be done, from accident, or from inability to perform what is required, needs very different measures from punishment. 'One ought to correct the bad that he may become better,' says Plato, 'but not the unfortunate.' We should not threaten to punish all who have not done a given amount of work in a set time. Either the requirement will be so low that the cleverer children do the work in much less than the stated time, rest content with this, and have time on their hands for mischief; or, if we arrange matters to suit the average children, the dullest and most backward are pretty certain of punishment, even after making far greater effort than those who escape. Such a proceeding assumes an equality of ability and of power of performance which does not exist.

Punishment does no good unless the child clearly understands why he is punished, and it will be helpful to him also to let him see how far any extenuating circumstances have weighed with us, and what he may expect in the future. The latter should not be put forward as a threat, but as information which will enable him to estimate more justly the position in which he stands. The important thing in all punishment is to rouse aversion to the fault, to get the child to recognise his culpability, and to feel such sorrow for his bad conduct as will make him strive not to fall in the same way again. It is not punishment alone that must be trusted to, but this in connection with other influences of a higher kind which may be made to lend their assistance. The teacher has not to punish the child in order to comp

do good, but to prevent his following the bad. Compulsory goodness is of no value, hence it is to the deterrent effect of punishment rather than the stimulative one we must look. In such a case as idleness, for instance, it may be necessary to punish for the neglect, but as a stimulus to *voluntary* industry this will not have much, if any, moral effect. It is *self-effort*, not compulsory action, we want to induce. A child who is simply flogged into being industrious will never by that means be made diligent in character, probably the reverse from the dislike engendered. Punishment acts by making a child choose the less of what appear to him as two evils; he must either sink his own inclination and forego temptation, or suffer the consequences. But this selective action between evils is a very different thing from the *wish to do right*. The latter is not given by punishment, but must be developed by quite other means. Without the implanting of good motives the compulsory withdrawal of bad ones is useless as a means of moral growth. Punishment, when it acts properly, serves to remove obstacles and so give the better influences room and opportunity to act; it is therefore an important, but can never be the most important, part of any disciplinary training. Sympathy, instruction, habit, example, and good motives will all have their share in the work. A kind encouraging word or two after punishment will often not only assure the child we bear no malice, but will do much to make him resolve upon amendment. Directly a child shows any anxiety to improve he should receive every encouragement, and we should be particularly cautious not to remind him at every step of his past offences. 'How careful should we be,' says Miss Edgeworth,

'never to chain children to their dead faults.' To act as though we cared nothing about the child's improvement, or considered him incorrigible and not worthy of further sympathy, is pretty sure to make him what he sees we think him. He must always feel his efforts at amendment will be appreciated, and that the way is open for him to reinstate himself in our good graces.

It is a great mistake to view punishment, in the case of children, in the light of vengeance of the law, or as expiation of guilt. It should never be forgotten that the far greater number of a child's offences are against his *own* good, and not injuries to *others*. The function of the teacher as a judge and administrator of law has been made too much of. His work is very much more that of a physician, a missionary, or a reformer. He has not to avenge, but to cure; and must use his heart as well as his head. To put on the stern, unbending face of a judge dealing with a criminal, and to administer justice in the cold passionless way some would have him, would be to completely mistake his office. In the vast majority of instances school punishment is only justifiable as a *measure of guidance and reform*; and it must be administered in such a way as to show that the teacher regards it in this light. We must be cautious, also, not to extend the remedies necessary in the case of a few morbidly depraved and neglected children to the general body who need quite different treatment. The needs of the few must not be allowed to control our actions over the many, and lead us to treat the average and better-disposed child in a way suitable for the reclamation of hardened offenders.

The more closely the action and the consequence

are associated, the more strongly will the latter act as a deterrent. Hence although it is well, especially in any serious case, to let some little time elapse between the commission of the fault and the punishment, in order that the child may recognise his position and calm down from any passionate excitement, the delay must not be too great—a few hours at most. As the hope of reward affects the child very little unless the reward be near at hand, so, as previously remarked, threats of even heavy punishments have little effect where the prospect of having to suffer them seems to the child remote.

From Rousseau down to Mr. Herbert Spencer the importance of the discipline of consequences, of the 'inevitable reactions' following the commission of faults, has been often insisted upon. The influences arising from such reactions are very valuable as far as they go, but they cover but a very small part of the necessities of school discipline. They are certain, and the bond of association between fault and punishment is clearly evident; but they partake too much of the nature of fate (punishing inadvertences to the same extent as deliberate misconduct, and making no allowance for extenuating circumstances) for the teacher to attempt to bring his own measures into conformity with them.

Punishments often lose more than half their value when administered in a careless and indifferent manner. In such a case the teacher appears concerned only about the past fault, not about the future influence. They seem to the child more like the inflictions of a careless stranger than of an anxious sympathising friend. Much has been said and written about the teacher being always calm and judicial and

ver giving way to anger. So far as this means at the teacher should never display ill-tempered ritability, or be guilty of an outburst of passion, the emarks are just; but there seems no reason why the eacher should act unnaturally and hide that righteous nger at deliberate or gross misdoing, which, kept under proper control so as not to warp our judgment or lead to animosity against the child, is in its place—as Dr. Priestley long ago pointed out—a valuable influence, and often gives much increased force to punishment. It seems perfectly natural to the child that we should be angry at wrong-doing; and if completely dissociated from bad temper, such anger may be made to have a wholesome effect upon the child and often save the necessity of severer measures. Where such placidity of temperament exists that anger is scarcely ever shown, an expression of genuine pleasure or interest will probably be as rare. The teacher should be essentially human and not automaton-like, either in administering punishment, or in anything else. Children know nothing of abstract laws, and the younger they are the more necessary the personal element is. We only confuse children by trying to divest duty of its proper background, and we must be extremely cautious how far we withdraw the accompanying wish or will of another from the laws enjoined upon the child. As before observed, the transition from personal considerations to abstract conditions of law is a critical one; even in its principal features it is the work of years, and cannot rightly be viewed as ever quite complete.

Punishments vary very greatly in suitability, in the ease with which they may be modified, in the nature of their influence, and in promptness of effect.

It is a consideration of much moment to the teacher which of the various means at his disposal should be employed in any particular case. The principal kinds in common use are censure, disgrace, deprivation of play or occupation, compulsory silence, prohibition of companionship of fellows, solitary confinement, tasks, the rod, and expulsion. Each of these may, under certain circumstances, be a source of mischief, and each, employed under proper conditions, may be made of essential service. Some children feel one kind strongly, some another. The more acutely they feel any kind of punishment the better, as then a correspondingly small amount may be used with success. More than is just sufficient to accomplish our purpose should never be employed. If we get into a habit of using heavy punishments children harden to them, and they are no more effective in ordinary cases than lighter ones, while the evil is much increased.

In nearly all discussions about punishment we proceed far too much on merely theoretical grounds. If we took the trouble to observe children carefully, or even to go back to our own childhood's experiences and those of our school-fellows, we should often be able to correct our theories, and save ourselves the shame and evil of blundering in practice. Every teacher knows that numerous defects in punishments exist which are little dwelt upon by theorists, and that many of the evils which are made so much of, and of which such gloomy pictures are drawn, are in the great majority of instances inoperative. The effects of gross abuses have too often been imputed to proper and moderate administration. Much will depend upon the character and skill of the teacher as to what the

effect will be. What will answer with one teacher or mode of administration will fail with another. Each must make trial for himself, and employ those forms of correction which with him prove *least harmful and most effective.* In case of bad management any punishment may lead to evil results, and none will suit all circumstances.

Probably no kind of punishment has ever been employed which has not been condemned by one writer or another from particular points of view: but because the application of a certain mode of correction may be productive of mischief in particular instances, there is no reason for abandoning it, when needed, in cases where it may be usefully and properly employed. To abandon all punishments which may be abused would leave us absolutely without help. It only shows, what every experienced teacher will admit, that no punishment should be blindly used, but that all need judgment and care in application ; and that the more liable any form of punishment is to misuse, and the graver the results of such error, the greater should be the caution exercised in its use, and the less it should be employed where any safer method will serve.

Compulsory silence, and exclusion from companionship, are sometimes useful punishments for such offences as lying, bad language, passionate outbursts of temper, bullying, &c. Against idleness, carelessness in work, and milder faults, deprivation of play will often serve ; as will also in some cases the homœopathic-like remedy, suggested by Locke, of enforced inactivity. What is frequently styled idleness in school is simply wrong occupation—the diversion of the attention to matters of amusement

instead of proper work; laziness and inertness are much rarer faults in children. This should be borne in mind in deciding upon measures of treatment. It is worse than useless to keep children in during play-time, or after school hours, without some one in authority to look after them; setting them work to do without this only partially meets the case. The punishment is more effective where they are separated from each other and kept perfectly inactive. Solitary confinement is a much heavier punishment than mere 'keeping in' as one of a number, and should be reserved for graver offences. It is least successful with sullen dogged tempers.

Censure, which has been already spoken of, may be graduated with great nicety, and if dealt out impressively and justly, will often be sufficient for minor faults; or it may be associated in varying degrees with other punishments, as disgrace. Its value depends much upon the character of the teacher.

Shame acts powerfully on some natures; it should be associated with moral offences, not such faults as restlessness, inattention, or misplaced talking. Caution must be exercised in linking it with action that the association is a proper one; false or misplaced shame is an evil. It has most influence in cases where the sense of honour exists, but has no effect upon hardened offenders, and soon loses its power if appealed to very frequently. It very rarely acts with a large body of delinquents as they keep one another in countenance.

Book tasks are often very strongly condemned by educational writers, but it is very doubtful whether, when used with moderation, the evils with which they are credited are not more imaginary than real in the

great majority of cases. Let the teacher watch for himself with great care the influence of book tasks upon children, and it is probable that when he has observed a wide range of cases he will scarcely be inclined to concur in their wholesale condemnation. He may find individual cases where their influence has not been a good one, but where a liking for books has been given by the teaching; an occasional task will not be found to affect this liking at all seriously. The habit of watching experiments in this way cannot be too strongly recommended to teachers. If more general, and the results were made known, many points of theory which seem very strong would probably soon become considerably modified. There is still very much to be learned about the work of the teacher, and thoroughly trustworthy results can only be arrived at by the proper combination of theory and observation.

Expulsion is a strong measure only to be resorted to in extremity. It is a confession of failure on the part of the teacher, and an assertion that the depravity of the child is such that no means at disposal are sufficient to control him, and that consequently he is an unfit associate for other children. What is to become of such a one? Cases of children deserving expulsion, except among the most depraved classes, are rare. It would be better to hold consultation with the parents before adopting such a course; and where it becomes necessary, the child should be expelled with the managers' concurrence, not from any question of the master's power or right to expel, but as a matter of expediency.

Corporal punishment has probably led to more discussion and to more violently antagonistic opinions

than any other means of correction employed in school. The term has come almost universally to be employed as a synonym for 'flogging'; though there seems no reason why it should not include all the punishments which depend upon pain of body, such as the far more objectionable ones of making children support weights, keeping them without food, compelling them to kneel on sharp objects, goading them with sharp points, &c.; and some of these, be it remembered, have often been employed where corporal punishment has been supposed to have been given up. Thus Wood mentions that, in his time, although the *rod* had been expelled from the public schools of France, yet not only boys but delicate young ladies were every day compelled to rest on their knees for a very considerable time on a floor. Instances of boasted abandonment in our own country could be quoted, where simply other forms of giving bodily pain have been substituted for the rod. If we are to abandon corporal punishment, it must be by ceasing to employ bodily pain *at all*, and not by keeping the letter to break the spirit of the rule in this miserable fashion. It is of the highest consequence that we should clearly realise the grounds upon which this discipline of pain rests; and to be satisfactory our knowledge of its results must be based upon something deeper than mere sentimental or theoretical opinions.

Pain consumes an amount of nervous energy proportionate to its intensity and duration, and thus undoubtedly tends to *weaken* nervous action—to subtract a portion of that force which we have to employ in education. It is in itself non-productive. Every action performed on account of the stimulus of pain is performed *in a very wasteful and expensive way*,

and to the extent of the waste takes away from the future store of energy for the sake of securing present requirements. Pain artificially induced is in its nature an evil, and where largely employed may be a serious one, apart from any ulterior effects on the disposition. The more clearly we recognise this, the more likely shall we be to arrive at a just decision respecting its use.

Where the future good overbalances the present loss, it will be necessary to make the sacrifice, unless some more economical and equally effectual means can be discovered: as in the case of disease it is often necessary to employ medicines which weaken before the conditions of future strength can be arrived at; or as destruction by cauterisation is sometimes necessary before healthy tissue can grow. The strength, or the new tissues, cannot be given by the medical remedy, but must be provided by other means. We should therefore regard a state needing corporal punishment as a diseased one, and when we apply such means to root out vice or repress an evil habit, we must remember that *voluntary right action* must be secured by other measures, for this the punishment will not supply. And, just as the bodily strength cannot be lowered beyond a certain point without great risk, and if it is, this may prove as fatal as the disease; so there is a point, dependent upon the state of the individual, beyond which corporal punishment must in no case go, or the remedy becomes worse than the evil it is intended to cure. It is a grave error to consider nervous force as inexhaustible; it is quite possible to flog a child until he *cannot* obey; and it must always be a question with us whether the amount of force required can be spared without injury. Corporal punishment is

thus clearly unsuited to children of highly emotional tendency and weakly habit of body; and to employ it with a tenderly nurtured child open to better influences is cruel.

With respect to the effects of corporal punishment upon the disposition, many factors have to be taken into account. Those persons who have most carefully watched its effects will probably concur that where used with skill and discretion by a sympathetic teacher, and care is taken to neutralise its side tendencies by other good influences, there is little or no cause to fear any evil results. There is something radically wrong besides the mere *use* of corporal punishment wherever the long train of evils laid to its charge are ever realised in practice.

Where pain is inflicted without the child recognising fully the reason for the infliction, he is restive under it; if to this is added the feeling of injustice, dislike of the teacher follows, which may at last deepen into hatred. Frequent pain has a tendency to render us irritable, and in the end sour our disposition. This tendency acts still more with children than in the case of adults, though the elasticity of the child's nature serves in some respects as a counterbalance; and if the pain is severe as well as frequent, it may so warp their natures as to embitter their future existence. Corporal punishment, therefore, should not be frequent on account of its weakening effect, its injurious influence on the temper when so employed, and, further, the fact that children then become hardened to bearing it and a larger and larger amount is required. Used to such an extent as to produce the fear and trembling of slaves it is highly mischievous.

Moral offences of a grave character, deliberate

and continued neglect of admonition, or rebellion, may be justly treated by corporal punishment; and it is 'sometimes necessary to give a physical check of this kind, as a counterpoise to wrong propensities or long-established habits, as a means of arousing the pupil from that dreamy irresolution which is frequently the greatest obstacle to reformation.'

If we know ourselves that we are acting from right motives, with the intention of being strictly just, and that there is no passion or the slightest trace of vindictiveness in our administrations of corporal punishment, we need not fear but that the children will in the end recognise its justice. They are wonderfully acute in this respect; they detect almost instantly in what spirit punishment is administered, and their feelings towards the administrator, and the good effects of the application vary accordingly. If its justice is not clearly recognised it cannot be expected to have any good moral effect. Children must be made to feel that the teacher dislikes its use—that it is to him an unpleasant necessity, which their good behaviour could do much to remove. We have seen that punishment, if it is to be viewed as just, must be uniform for the same amount of wrong doing—the same standard of punishment must be maintained; and this is impossible where several teachers are allowed to administer corporal punishment in the same school. There are sure in such a case to be considerable discrepancies, and the boys will institute injurious comparisons, even if those who use it are sufficiently experienced to do so wisely. The head teacher, as the most fitting and responsible person, and the one whose administration is most likely to be respected,

should always reserve the use of corporal punishment to himself.

If we punish a child when he is in a passion, he is not likely to feel the justice of the application, and such a proceeding is a common source of those contests for the mastery, which should be carefully avoided, unless forced upon us by the behaviour of the child himself. In such contests we must be very cautious to remember the limits beyond which corporal punishment should not go. If after a severe administration the child is still obdurate, we should not continue flogging him, for we may reach the limit and have to give in. It is far better to pause and give him time to reflect upon his position, with the distinct understanding that at the end of the period another punishment will result unless he obeys. Passion, which has perhaps supported him, has time to evaporate, and in all probability when the time comes he shrinks from another castigation and breaks down. When this takes place we must be most scrupulous to show no elation at his defeat, and must never treat him with derision, or all the good of the victory will be lost; rather we should show sympathy and the sorrow we feel at being compelled by his obduracy to chastise him so severely. A child's feelings rise instantly to resent any glorying over him as a fallen foe, and submission at once appears to him cowardly. He is defeated but not conquered. 'When children are made ashamed of submission,' says Lant Carpenter, 'they will become intrepid, probably unconquerable, rebels.'

Any severe punishments should always be given in private. It is never well, as before mentioned, to familiarise children with the sight of pain. It has

a hardening effect upon them, not only rendering their sympathies less keen, but by accustoming them to its effects upon others making them less sensitive to it themselves. A severe punishment will act just as much as a warning when they know it has been given as when they have seen it administered. It is a mistake to punish groups of offenders at once. The less disciplinary measures obtrude themselves upon the attention of children the better. No good teacher will walk about the school with the cane in his hand. The art of control is to so govern children that they do not feel it, and never stop to think about it.

There is always danger of the too common employment of the cane: it is such a ready means of settling difficulties, and seems to save so much time and trouble, that the temptation is often strong to use it where better means would serve. The 'short and easy way' is often a most unsatisfactory one. It is the child's good and not our own ease we should have in mind. We must beware too of the excitement of punishing: a good teacher is ever on his guard lest he should be betrayed into undue haste or over severity. When flogging is necessary, the greatest care should be exercised that it may be given in a way which cannot lead to bodily injury. A child's head should under all circumstances be sacred from punishment; for no offence should a child's ears be boxed. Such a proceeding may lead to disastrous consequences of which we little dreamed. Directly after punishing a child, while he is still smarting from pain, is a bad time to talk to him about the heinousness of his faults. His attention is distracted, and he is very likely angry and out of sympathy with the teacher; wait until he cools down,

and then a few words leading to forgiveness may be of the greatest value.

To sum up the principal conclusions at which we have arrived, we may say that corporal punishment is a wasteful mode of punishment and in itself an evil; it is needed for special cases, where other means have failed; it should be used for the repression of vice, and should be associated with good influences to give a tendency to virtue and neutralise any ill effects on the disposition; the child must be in a proper state of mind, and must feel its justice if it is to have a beneficial effect; it must be administered in a proper manner, and within certain limits; and lastly, the smallest amount must be used which will serve our purpose.

'No corporal punishment' should undoubtedly be a standard which every teacher should endeavour to work up to. The more we can do without such punishment the better, and its true abolition must come from teachers themselves: any external compulsion is only likely to lead to a mere change from the forbidden forms to others equally objectionable, if not worse. In the present state of things we must not delude ourselves with the idea that the majority of teachers will be able to do without its occasional employment at least. Where the attempt is made to do without the use of the cane its abandonment should never be announced to the pupils; it should be there for appeal if a case of great seriousness should arise. The fact that it is in the background, and may be used, will often deter some masterful spirit who would brave anything else but a sound flogging. The compulsory abandonment of corporal punishment would in itself be a strong inducement to some children to break loose.

The difficulties of control and proper disciplinary training are very great; arising partly from defective skill on the part of the teachers, partly from disturbing home influences, and in some cases from the depravity of the children themselves. It is unfortunate that those teachers most likely to need the support of corporal punishment are just those who are least likely to use it discreetly. Among the greatest drawbacks to its abolition are, the difficulty of dealing with such *masses* of children as the master has in many cases to discipline, and the shortcomings of those associated with him in his work. A master may be able in a good school, where he can know all the children intimately, and thoroughly supervise the work, to do without the use of the cane except upon the rarest occasions; and he should never rest content until he is able to accomplish this. But, where he has so large a number of children under his charge that it is impossible for him to know every child as he ought, and he has further to support the authority of inexperienced and possibly weak assistants, his difficulties are immensely increased; and he may well feel how little those know of the real needs of school work, or of the nature of children, who so unsparingly condemn the use of corporal punishment, as though it were solely necessitated by his ignorance and unskilfulness in control. Under an ideal state of things, no doubt much might be accomplished, but we have to deal with matters as they are.

As the masses of our population become more alive to educational influences, and the home sympathies more with the teacher, the less need will there be to employ the lower forms of punishment. Flogging has been abolished in the schools of many of the continental nations; and where the

children come from educated homes, as in Germany and Holland, things no doubt wear a different aspect. But even here gross moral offences must occasionally arise needing very serious treatment. One would like to know, not the theoretical remedy, but exactly what is done in a large number of such cases, to be able to test how far the means adopted have proved effective, and in what respects they are superior to the ordinary form of corporal punishment. To talk of moral suasion in a large school without any adequate means of correction is absurd. Some punishment there must be sufficiently severe to meet the case. The difficulty is—*What?* He who would suggest a really practical remedy for grave faults—one which could be applied by all teachers, and which would be less expensive of energy, less likely to lead to evil results, and as effectual as corporal punishment—would deserve to take high rank as a public benefactor.

If we are able to secure the good without the loss involved in corporal punishment, it is not only foolish to employ it, but wrong. And there can be no doubt but that there are many experienced teachers whose personal influence, readiness of resource, and skilled judgment render them able to abandon its use except on very extraordinary occasions. To make these, however, the rule for their weaker or less fortunately situated brethren would be to seriously embarrass the latter and injure their work, if not wreck their entire control. A highly-skilled physician may be able to accomplish a cure by means which, if employed in a coarser clumsier way by less accomplished and less experienced members of the profession, would fail completely.

No doubt the severity and cruelty with which corporal punishment was administered in the past, has had much to do with its condemnation; and many of the arguments employed against it apply to its bygone use, and have no weight against its moderate and proper application in the present. At one time

it seems to have been looked upon not only as a means of moral correction, but as a necessary spur to learning; the benefit apparently being supposed to be in proportion to its severity. It was not only employed in schools, but for a long time even at the universities: Milton is said to have been one of the last who were flogged there. 'Humanity is shocked,' says Vicesimus Knox, writing towards the end of the last century, 'at the degree of severity which has been used in schools.' Nor was this state of things confined to England: so far as we can judge, it was as bad or even worse abroad. How common and severe corporal punishment was in some cases may be gathered from the following account, given by Jean Paul Richter, of the punishments of John Jacob Häuberle, a Suabian schoolmaster.

'Which of us can boast, like Häuberle, of having administered, during his schoolmastership of fifty-one years and seven months, 911,527 strokes of the cane and 124,000 of the rod; also 20,989 blows with the ruler; not only 10,235 boxes on the ear, but also 7,905 tugs at the same member; and a sum total of 1,115,800 blows with the knuckles on the head? Who, besides Jacob Häuberle, has given 22,763 impositions, partly in the Bible, partly in the catechism, partly in the Psalm book, partly in the grammar, as with four syllogistic logical figures, or a *sonate à quatre mains*? And did he not threaten the rod to 1,707 children who did not receive it, and make 777 kneel upon round hard peas, and 631 upon a sharp-edged piece of wood, to which are to be added a corps of 5,001 riders on the wooden horse?'

Compared with such a condition of things as this, our advancement is as from a state of barbarism to civilisation; and who can doubt that, as education

advances and the conditions become easier, corporal punishments will be less and less employed, and that much which is not possible now may then be accomplished. No one will hail with greater satisfaction the advent of such a time than the teacher; and though now his difficulties are many and encouragement often scanty, yet the true glory of his labour is great, for, in rightly moulding the lives of the little ones under his care, he is not only advancing a great work in the present, but influencing the intelligence, nobility, and progress of generations yet to come.

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